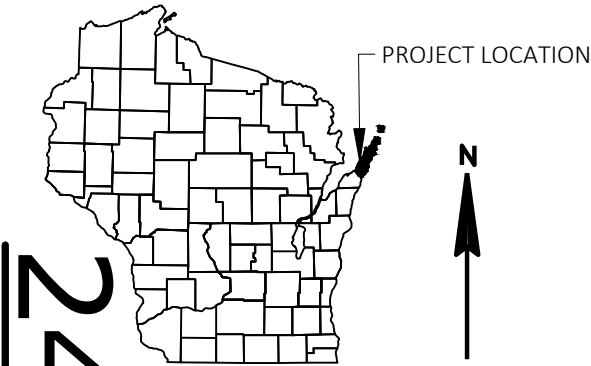


ORDER OF SHEETS

Section No. 1	Title
Section No. 2	Typical Sections and Details (Includes Erosion Control Plans)
Section No. 3	Estimate of Quantities
Section No. 3	Miscellaneous Quantities
Section No. 4	Right of Way Plat
Section No. 5	Plan and Profile
Section No. 6	Standard Detail Drawings
Section No. 7	Sign Plates
Section No. 8	Structure Plans
Section No. 9	Computer Earthwork Data
Section No. 9	Cross Sections

TOTAL SHEETS = 92



DESIGN DESIGNATION

A.A.D.T. (2020)	=	4,600
A.A.D.T. (2040)	=	5,000
D.H.V.	=	680
D.D.	=	61/39
T.	=	9.7%
DESIGN SPEED	=	30 - 55 MPH
ESALS	=	1,100,000

CONVENTIONAL SYMBOLS

PLAN	
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE

GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

EGG HARBOR - FISH CREEK

RAINBOW RIDGE RD - BLUFF LN

STH 42

DOOR COUNTY

STATE PROJECT NUMBER
4140-34-60

END PROJECT

- STA 366+62.00
Y = 265,035.113
X = 527,549.026
- STA 334+05.45 (AH) =
STA 334+01.14 (BK)
Y = 262,361.982
X = 528,032.518
- STA 232+25.64 (AH) =
STA 232+25.70 (BK)
Y = 252,236.837
X = 527,305.256
- STA 226+08.11 (AH) =
STA 226+08.48 (BK)
Y = 251,620.113
X = 527,281.923
- STA 203+65.67 (AH) =
STA 203+65.43 (BK)
Y = 249,457.437
X = 526,740.986
- STA 138+85.63 (AH) =
STA 138+84.95 (BK)
Y = 243,837.390
X = 523,719.781
- STA 118+96.18 (AH) =
STA 118+93.53 (BK)
Y = 242,351.761
X = 522,398.914
- STA 101+01.33 (AH) =
STA 101+00.94 (BK)
Y = 241,209.637
X = 521,021.948
- STA 86+83.35 (AH) =
STA 86+81.52 (BK)
Y = 240,432.963
X = 519,836.367
- STA 72+26.12 (AH) =
STA 72+26.00 (BK)
Y = 239,262.144
X = 519,012.292
- STA 63+31.28 (AH) =
STA 712+97.81 (BK)
Y = 238,388.262
X = 518,842.999
- STA 649+55.97 (AH) =
STA 649+60.50 (BK)
Y = 232,742.854
X = 518,969.742
- BEGIN PROJECT
STA 644+24.00
Y = 232,281.777
X = 518,695.442



HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, DOOR COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM NAVD 88 (2012)

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4140-34-60		

ORIGINAL PLANS PREPARED BY

MADISON | EAU CLAIRE | WAUKESHA | APPLETON | TOMAH | WAUSAU

DATE: 7/25/23 *Jessica Lewis* (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CORRE, INC.
Designer	CORRE, INC.
Project Manager	PAUL BRAUER, P.E.
Regional Examiner	
Regional Supervisor	DANIEL SEGERSTROM, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 7/28/2023 *Paul Brauer, P.E.* (Signature)

GENERAL NOTES

- THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
- RIGHT OF WAY LINES SHOWN ON THE CROSS SECTIONS ARE APPROXIMATE.
- ALL RADII ARE MEASURED TO EDGE OF PAVEMENT UNLESS OTHERWISE SHOWN OR NOTED ON THE PLAN.
- CONSTRUCT INSIDE EDGE OF SIDEWALK 1/2 INCH HIGHER THAN TOP OF CURB WHEN THEY ARE ADJACENT TO EACH OTHER.
- PRIOR TO THE PLACEMENT OF STEEL PLATE BEAM GUARD OR MGS GUARDRAIL, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.
- HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.
- TOPSOIL SHALL BE PLACED 1 INCH BELOW THE TOP OF ADJACENT CONCRETE CURBS OR SIDEWALKS.
- THE QUANTITY OF THE ITEMS FOR EROSION PROTECTION INCLUDES AN UNDISTRIBUTED AMOUNT FOR PROTECTION, CONTROL AND ABATEMENT OF WATER POLLUTION RESULTING FROM SOIL EROSION. THE DISTRIBUTION AND LOCATION OF THESE MATERIALS ARE TO BE DETERMINED BY THE ENGINEER.
- DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE TOPSOILED (SALVAGED), FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.
- (SALVAGED) TOPSOIL AND MULCH HAS BEEN COMPUTED BY DIRECT MEASUREMENTS ON THE CROSS SECTIONS PLUS 5 FT BEYOND THE TOE OF SLOPE. SEEDING AND FERTILIZER HAS BEEN COMPUTED BY DIRECT MEASUREMENTS ON THE CROSS SECTIONS PLUS 10 FT.

UTILITY CONTACTS

COMMUNICATIONS

CHARTER
VINCENT ALBIN
3520 DESTINATION DR
APPLETON, WI 54915
PHONE: (920) 831-9249
EMAIL: VINCE.ALBIN@CHARTER.COM

SANITARY SEWER

FISH CREEK SANITARY DISTRICT #1
JOSEPH BURRESS
3815 COUNTY ROAD F
PO BOX 55
FISH CREEK, WI 54212
PHONE: (920) 868-3372
EMAIL: JGB@NEWWIS.COM

COMMUNICATIONS

FRONTIER COMMUNICATIONS OF WI LLC
CAL KLADE
1851 N. 14TH AVE
WAUSAU, WI 54401
PHONE: (920) 893-7212
EMAIL: CALVIN.KLADE@FTR.COM

COMMUNICATIONS

NET LEC LLC
RICK VINCENT
405 SECURITY BLVD, PO BOX 19079
GREEN BAY, WI 54307-9079
PHONE: (920) 617-7316
EMAIL: RICK.VINCENT@INSIGHT.COM

SANITARY SEWER & WATER

VILLAGE OF EGG HARBOR
BERT SAWYER
4548 BALL PARK RD
EGG HARBOR, WI 54209
PHONE: (920) 868-3334
EMAIL: BSAWYER@VILLAGEOFEGGHARBOR.ORG

ELECTRIC

WISCONSIN PUBLIC SERVICE CORPORATION
SCOTT GAUGER
2850 S ASHLAND AVE
GREEN BAY, WI 54307
PHONE: (920) 617-5151
EMAIL: SCOTT.GAUGER@WISCONSINPUBLICSERVICE.COM

RUNOFF COEFFICIENT TABLE

LAND USE:	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											



Dial 811 or (800)242-8511
www.DiggersHotline.com

WISDOT CONTACT

NE REGION
PAUL BRAUER
944 VAN DER PERREN WAY
GREEN BAY, WI 54304
PHONE: (920) 492-5629
PAUL.BRAUER@DOT.WI.GOV

VILLAGE CONTACT

VILLAGE OF EGG HARBOR
MEGAN SAWYER - VILLAGE ADMINISTRATOR
7860 STATE HWY 42
PO BOX 175
EGG HARBOR, WI 54209
PHONE: (920) 868-3334
MSAWYER@VILLAGEOFEGGHARBOR.ORG

TOWNSHIP CONTACT

TOWN OF EGG HARBOR
PAUL PETERSON - CHAIRMAN
5242 COUNTY ROAD I
STURGEON BAY, WI 54235-8936
PHONE: (920) 493-0528
TOWNCHAIRMAN@TOWNOFEGGHARBOR.ORG

TOWNSHIP CONTACT

TOWN OF GIBRALTAR
STEVE SOHNS - CHAIRMAN
2833 MAPLE GROVE EAST
FISH CREEK, WI 54212
PHONE: (920) 839-1247
SSOHNS@GIBRALTARWI.GOV

WISDOT SURVEYOR

CORMAC MCINNIS, PL
944 VANDERPERREN WAY,
GREEN BAY, WI 54304
PHONE: (920) 492-5638
CORMAC.MCINNIS@DOT.WI.GOV

DOOR COUNTY CONTACT

DOOR COUNTY
THAD ASH - HIGHWAY COMMISSIONER
1001 S DULUTH AVE
STURGEON BAY, WI 54235
PHONE: (920) 746-2500
ASHT@CO.DOOR.WI.US

DNR CONTACT

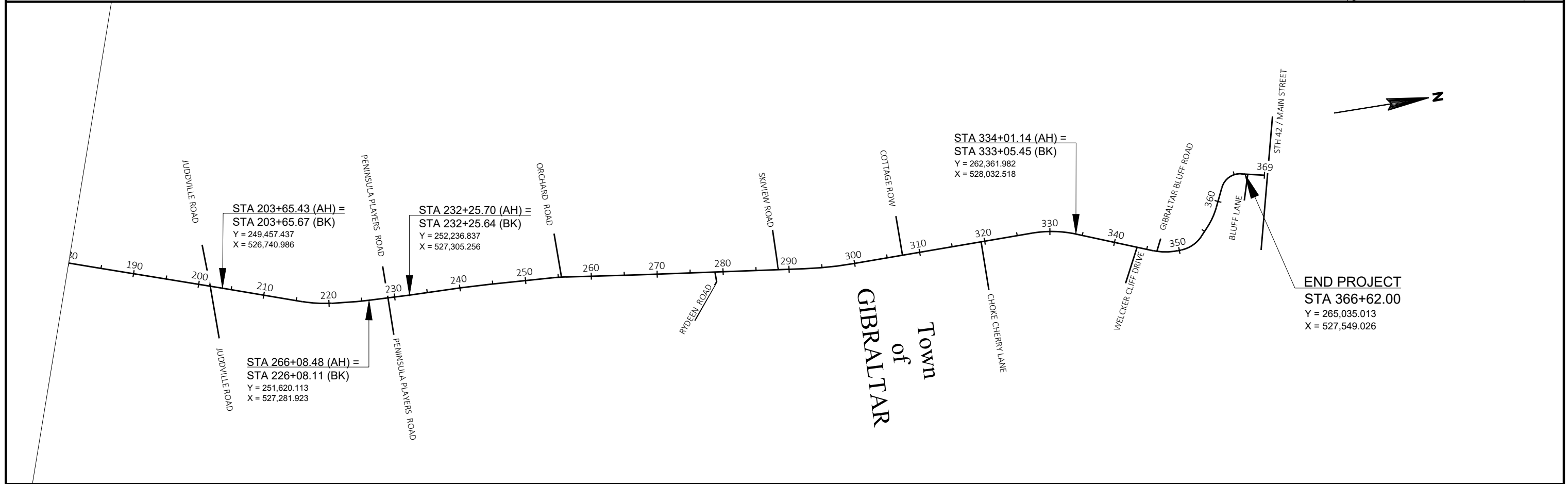
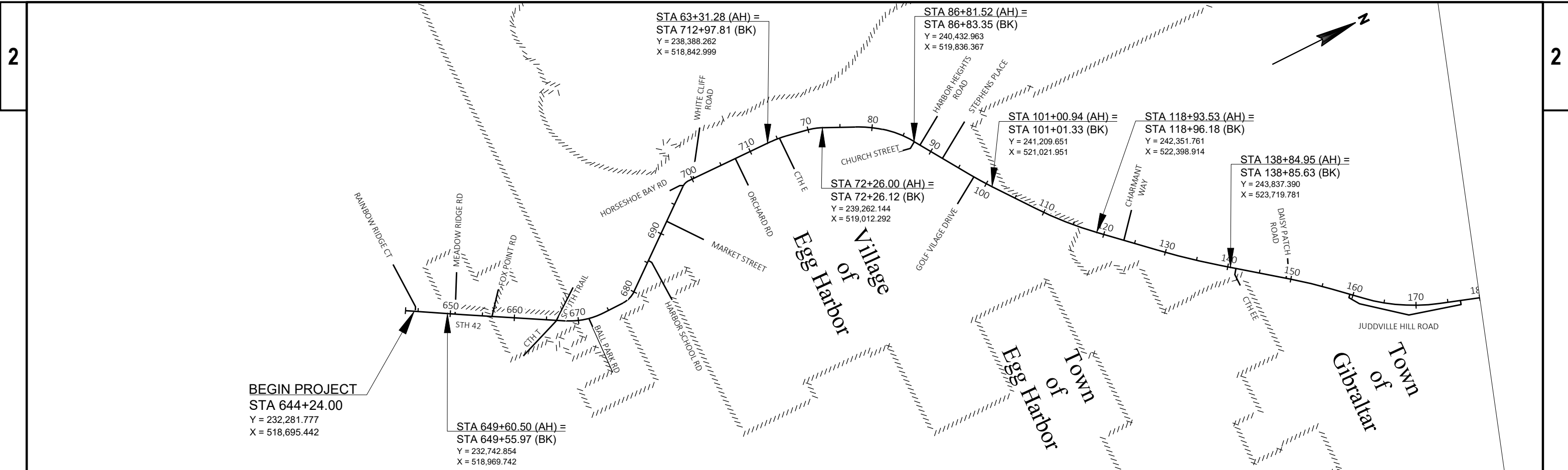
DEPARTMENT OF NATURAL RESOURCES
NORTHEAST REGIONAL HQ
2984 SHAWANO AVE.
GREEN BAY, WI 54313
MATT SCHAEVE
PHONE: (920) 366-1544
MATT.SCHAEVE@WISCONSIN.GOV

CONSULTANT CONTACT

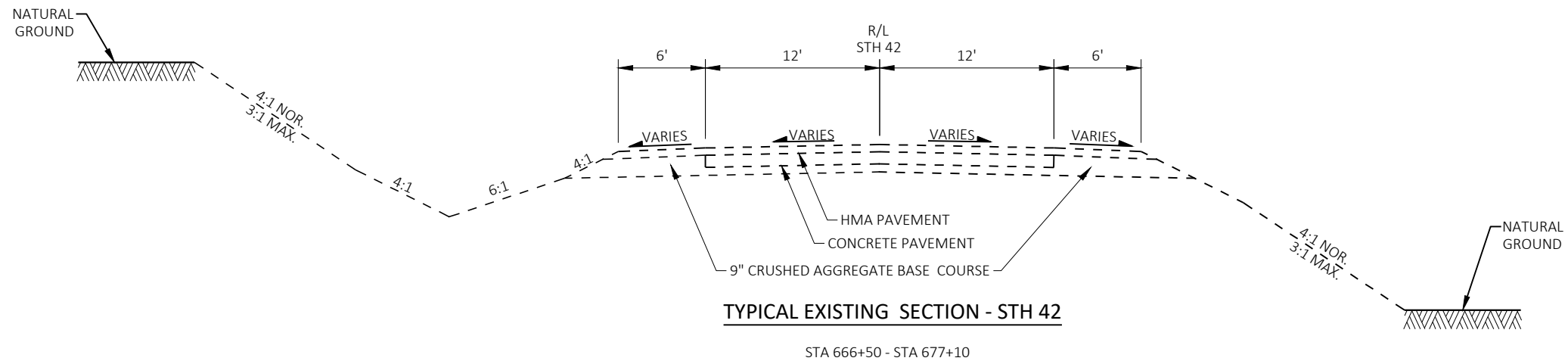
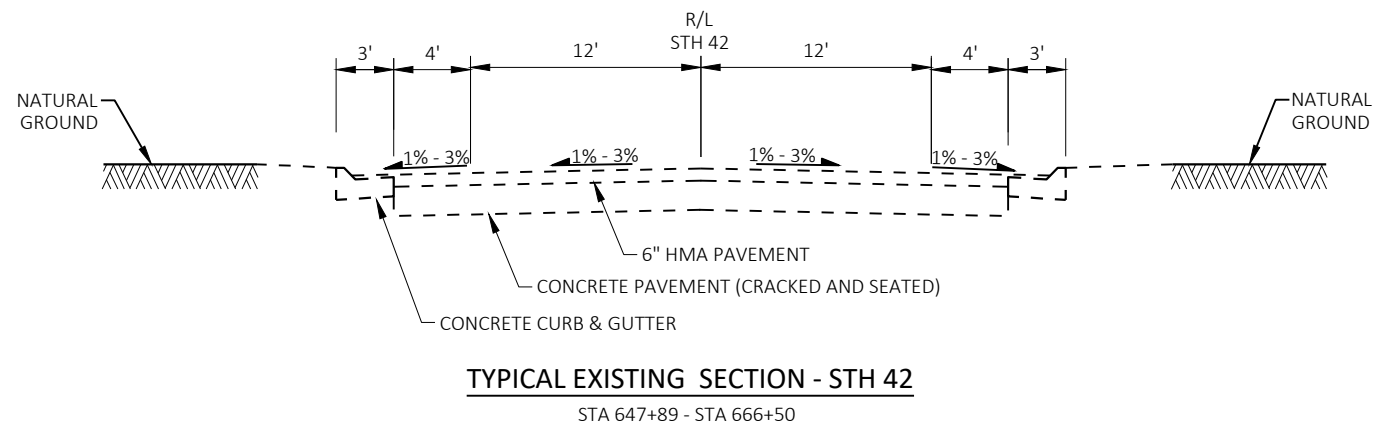
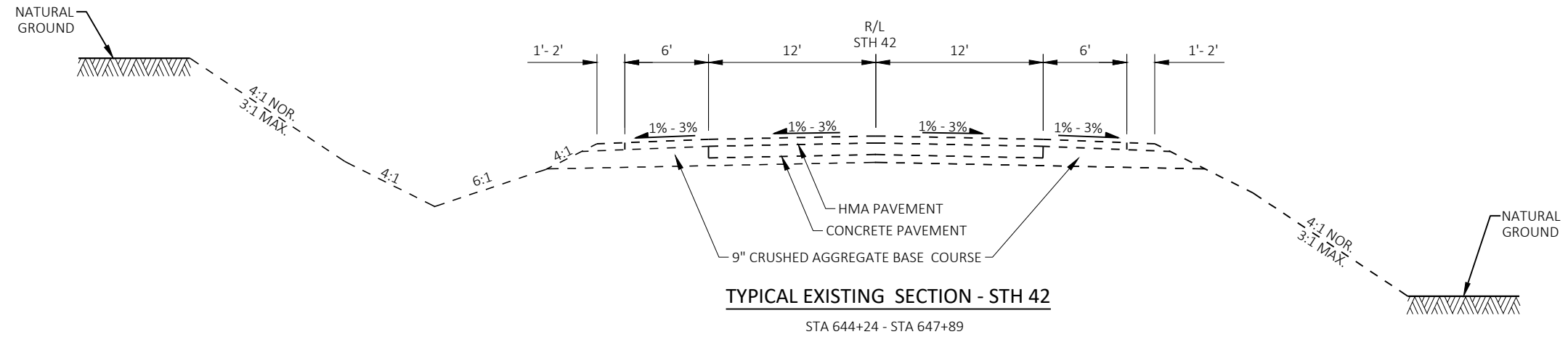
CORRE INC.
20900 SWENSON DR, SUITE 800
WAUKESHA, WI 53186
JESSICA LEWIS
PHONE: (262) 393-1508
JLEWIS@CORREINC.COM

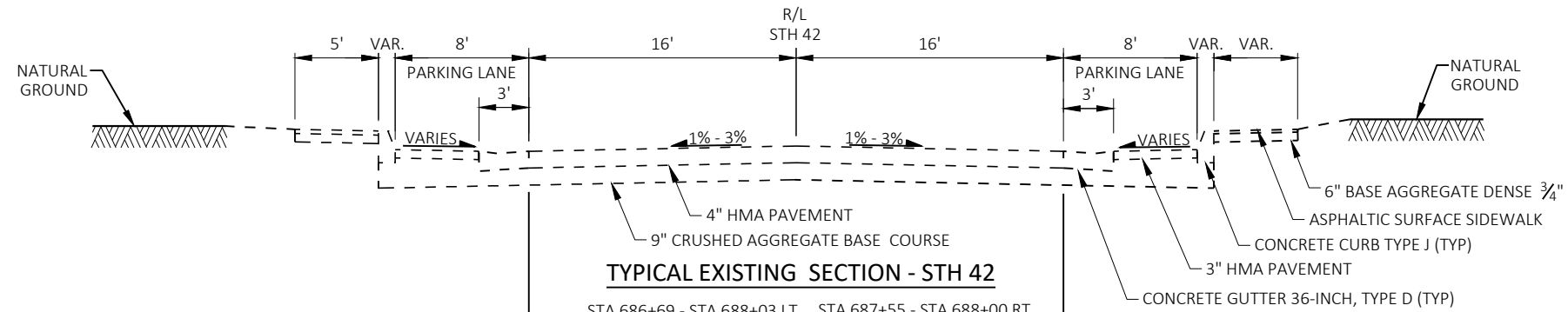
TOTAL PROJECT AREA = 70 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 31 ACRES

PROJECT NO: 4140-34-60	HWY: STH 42	COUNTY: DOOR	GENERAL NOTES AND UTILITIES	SHEET	E
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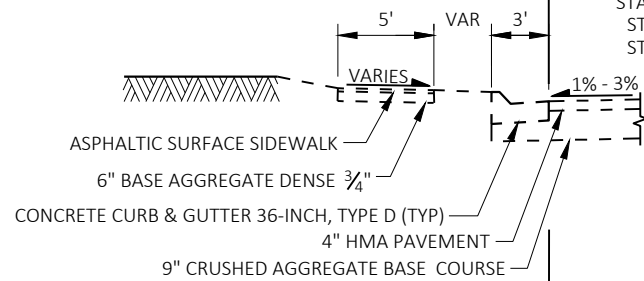


PROJECT NO: 4140-34-60	HWY: STH 42	COUNTY: DOOR	PROJECT OVERVIEW	SHEET	E
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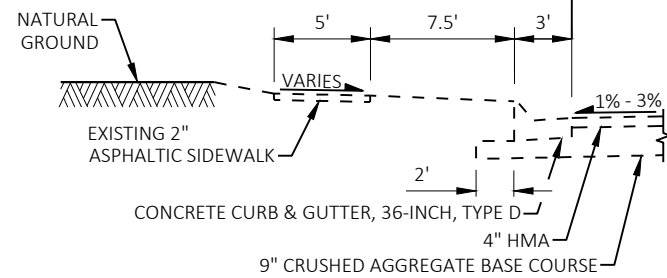


STA 686+69 - STA 688+03 LT STA 687+55 - STA 688+00 RT
 STA 688+56 - STA 689+45 LT STA 688+54 - STA 689+21 RT
 STA 690+35 - STA 691+25 LT STA 704+33 - STA 705+43 RT
 STA 692+30 - STA 693+26 LT STA 705+83 - STA 706+44 RT
 STA 693+64 - STA 694+55 LT
 STA 694+99 - STA 695+87 LT
 STA 696+10 - STA 697+00 LT
 STA 700+97 - STA 701+33 LT
 STA 701+63 - STA 702+09 LT
 STA 702+51 - STA 703+44 LT
 STA 705+03 - STA 705+70 LT
 STA 706+08 - STA 706+38 LT
 STA 709+66 - STA 709+89 LT
 STA 710+28 - STA 710+95 LT
 STA 711+04 - STA 711+88 LT
 STA 63+58 - STA 64+03 LT
 STA 64+17 - STA 64+62 LT



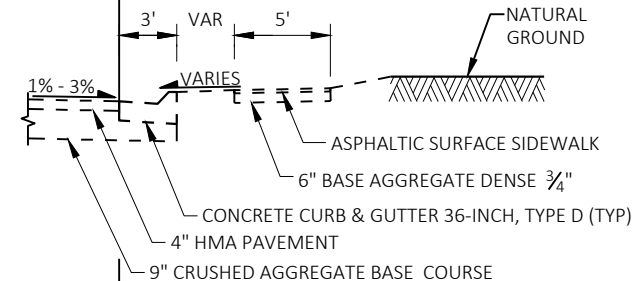
TYPICAL EXISTING SECTION - STH 42

STA 677+10 - STA 686+69 LT
 STA 708+30 - STA 709+66 LT
 STA 711+88 - STA 63+50 LT



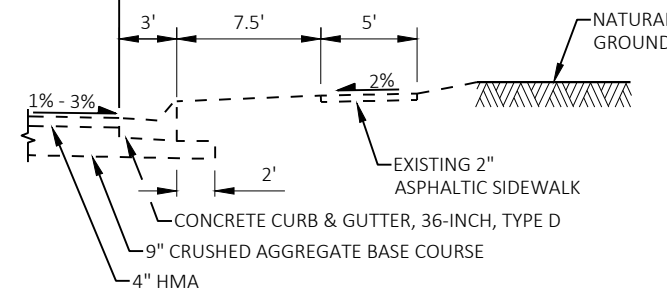
TYPICAL EXISTING SECTION - STH 42

STA 688+03 - STA 688+56 LT
 STA 689+45 - STA 690+35 LT
 STA 691+25 - STA 692+30 LT
 STA 693+26 - STA 693+64 LT
 STA 694+55 - STA 694+99 LT
 STA 695+87 - STA 696+10 LT
 STA 697+00 - STA 700+97 LT
 STA 701+33 - STA 701+63 LT
 STA 702+09 - STA 702+51 LT
 STA 703+44 - STA 705+03 LT
 STA 705+70 - STA 706+08 LT
 STA 706+38 - STA 708+30 LT
 STA 709+89 - STA 710+28 LT
 STA 710+95 - STA 711+04 LT
 STA 711+55 - STA 711+90 LT
 STA 64+03 - STA 64+17 LT



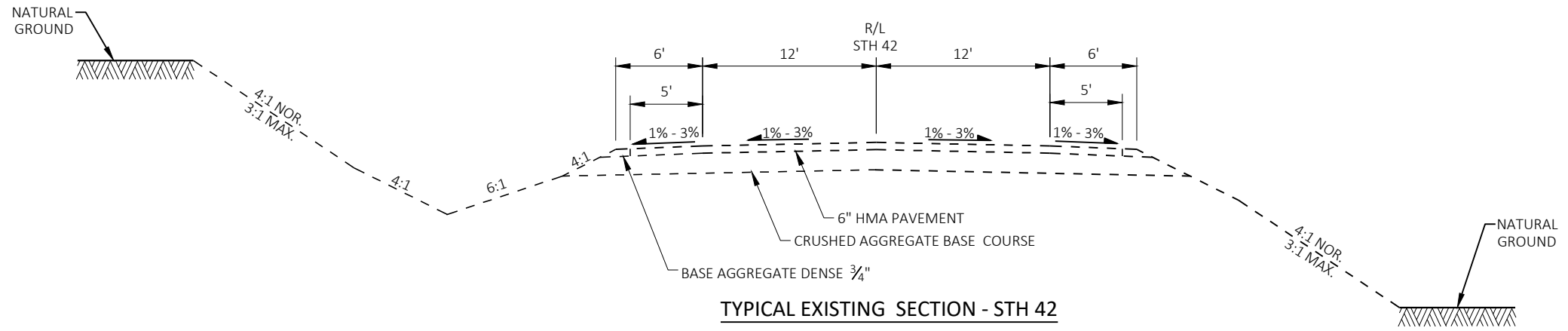
TYPICAL EXISTING SECTION - STH 42

STA 677+10 - STA 680+30 RT (NO SIDEWALK)
 STA 65+60 - STA 69+70 RT



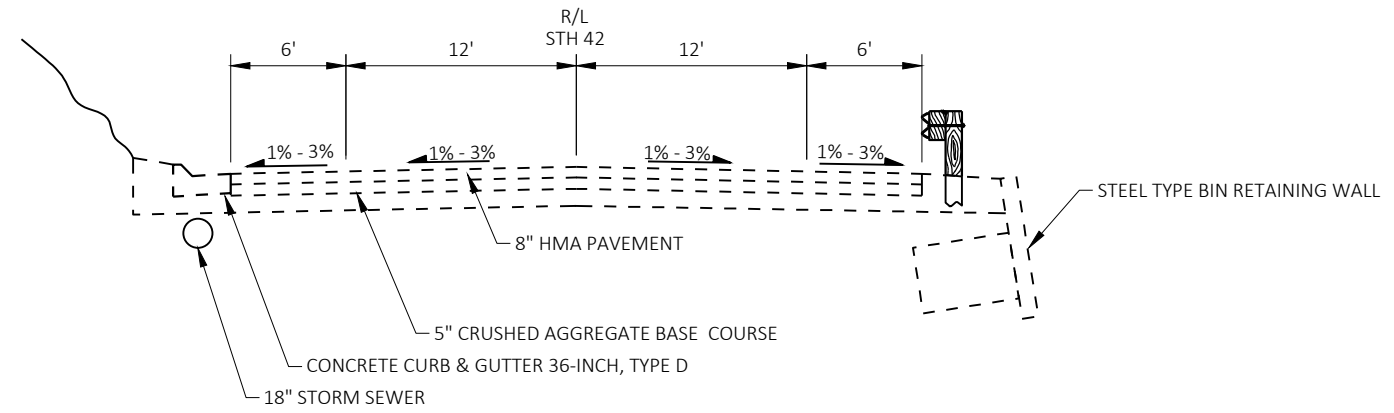
TYPICAL EXISTING SECTION - STH 42

STA 680+30 - STA 687+55 RT
 STA 688+00 - STA 688+54 RT
 STA 689+21 - STA 704+33 RT
 STA 705+43 - STA 705+83 RT
 STA 706+44 - STA 65+60 RT



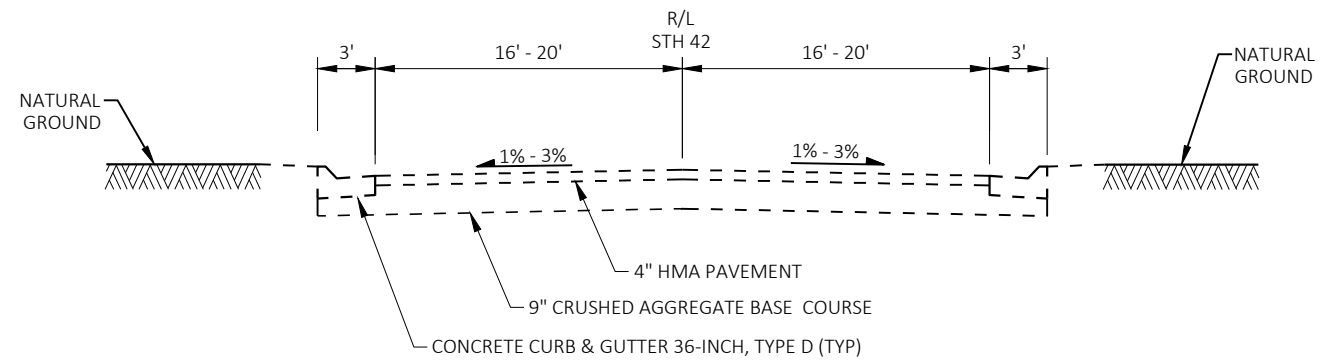
TYPICAL EXISTING SECTION - STH 42

STA 64+62 - STA 70+00 LT
STA 69+70 - STA 70+00 RT
STA 70+00 - STA 351+00
STA 351+00 - STA 353+00 RT



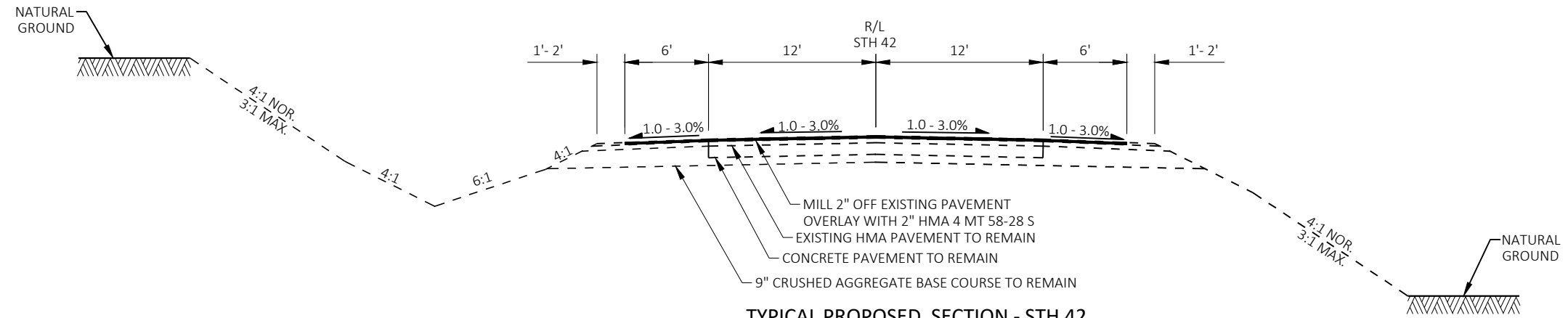
TYPICAL EXISTING SECTION - STH 42

STA 351+00 - STA 361+50 LT
STA 353+00 - STA 361+50 RT



TYPICAL EXISTING SECTION - STH 42

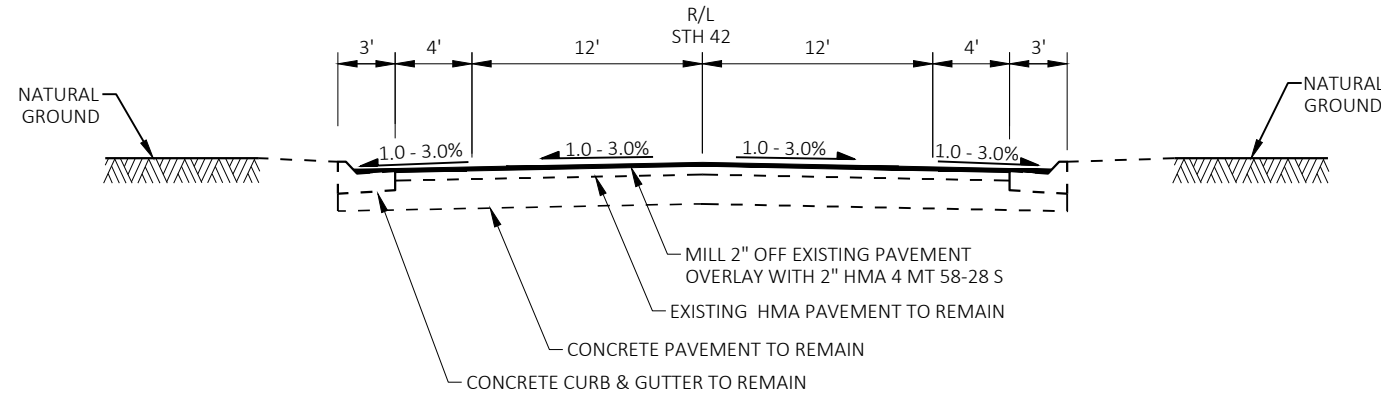
STA 361+50 - STA 366+62



TYPICAL PROPOSED SECTION - STH 42

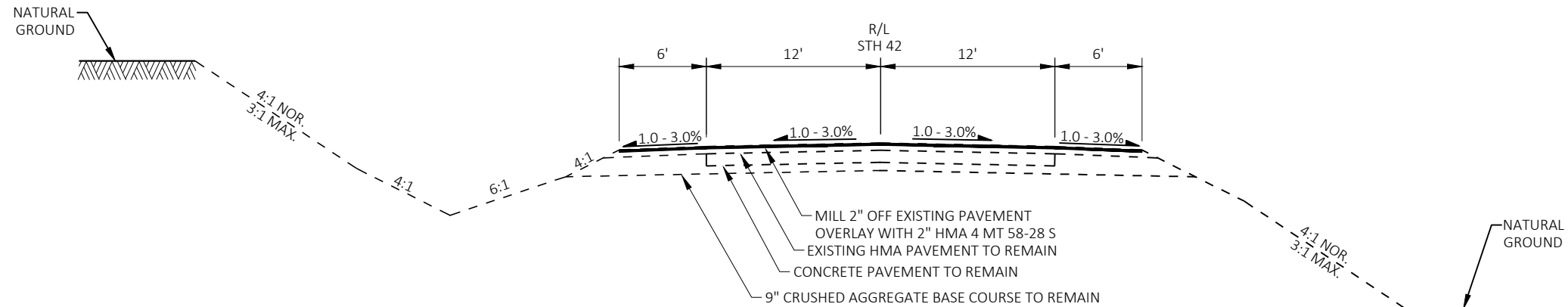
STA 644+24 - STA 647+89

NOTE:
FINAL PAVEMENT CROSS SLOPES TO MATCH EXISTING CROSS SLOPES



TYPICAL PROPOSED SECTION - STH 42

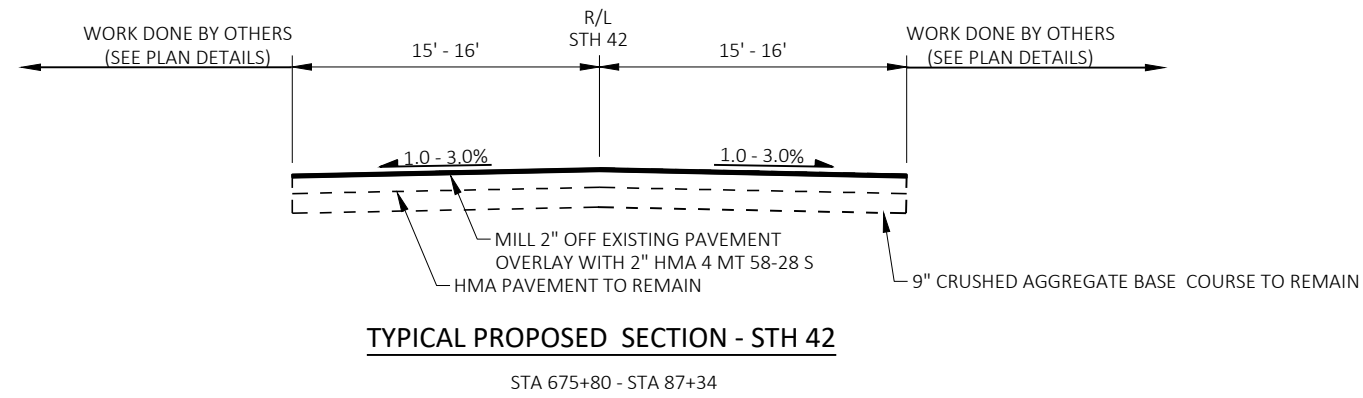
STA 647+89 - STA 666+50



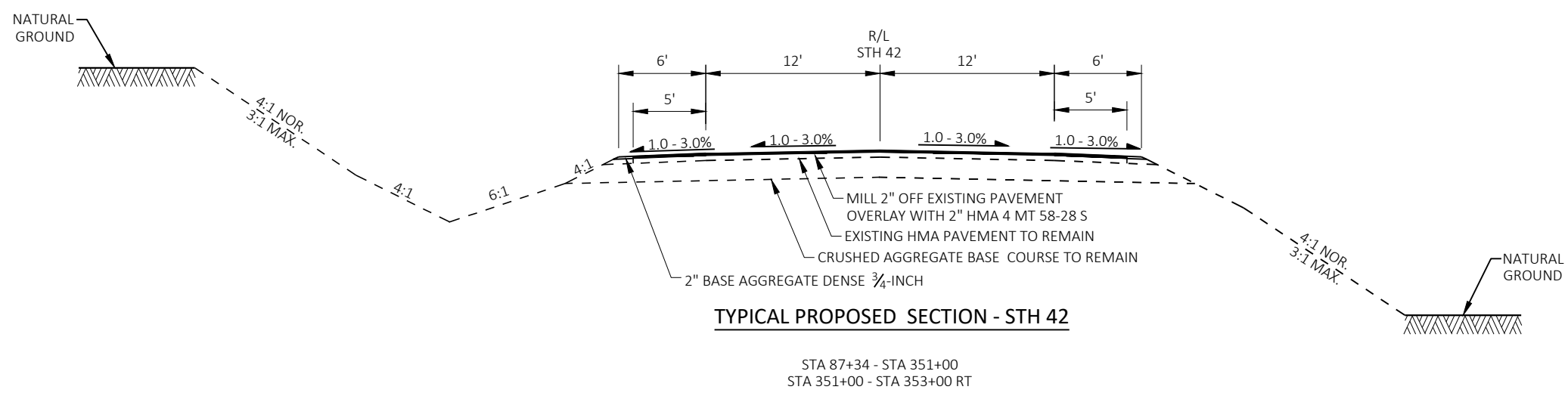
TYPICAL PROPOSED SECTION - STH 42

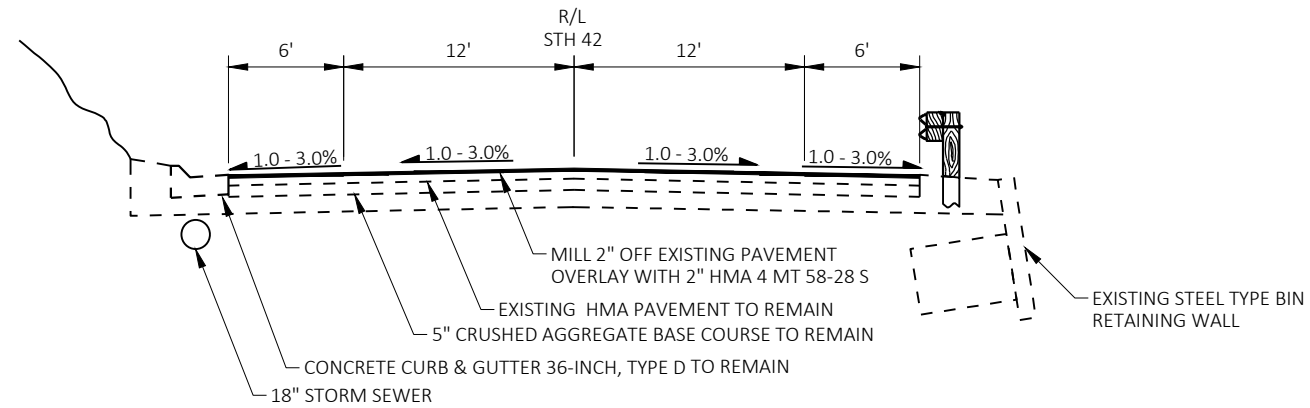
* STA 666+50 - STA 677+10

* STA 668+05 - STA 675+80 CONSTRUCTED BY OTHERS



NOTE:
FINAL PAVEMENT CROSS SLOPES
TO MATCH EXISTING CROSS SLOPES

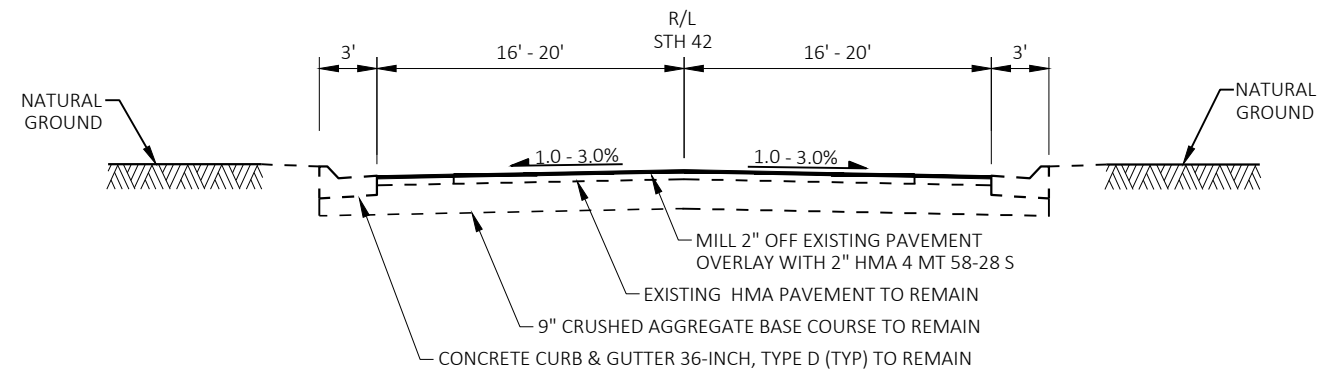




TYPICAL PROPOSED SECTION - STH 42

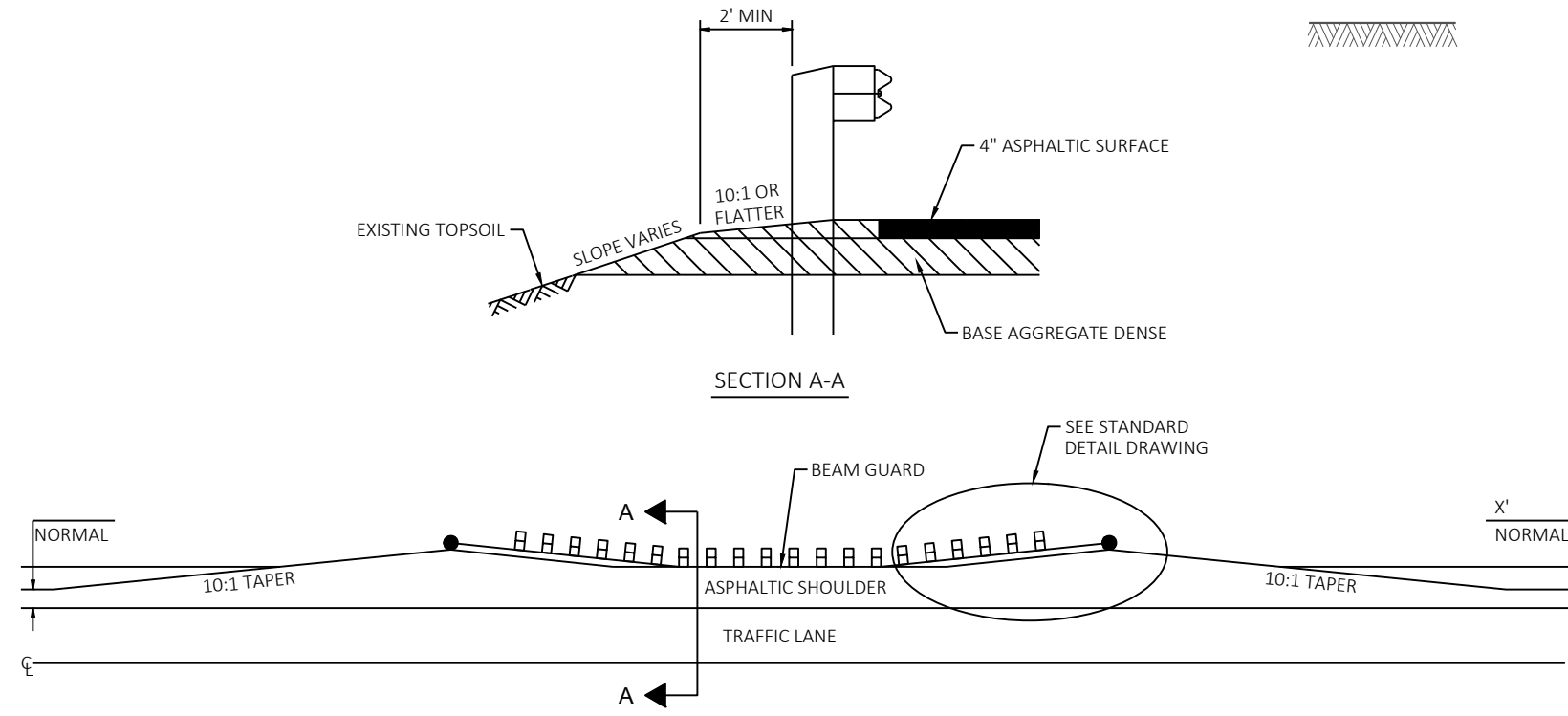
STA 351+00 - STA 361+50 LT
STA 353+00 - STA 361+50 RT

NOTE:
FINAL PAVEMENT CROSS SLOPES TO MATCH EXISTING CROSS SLOPES

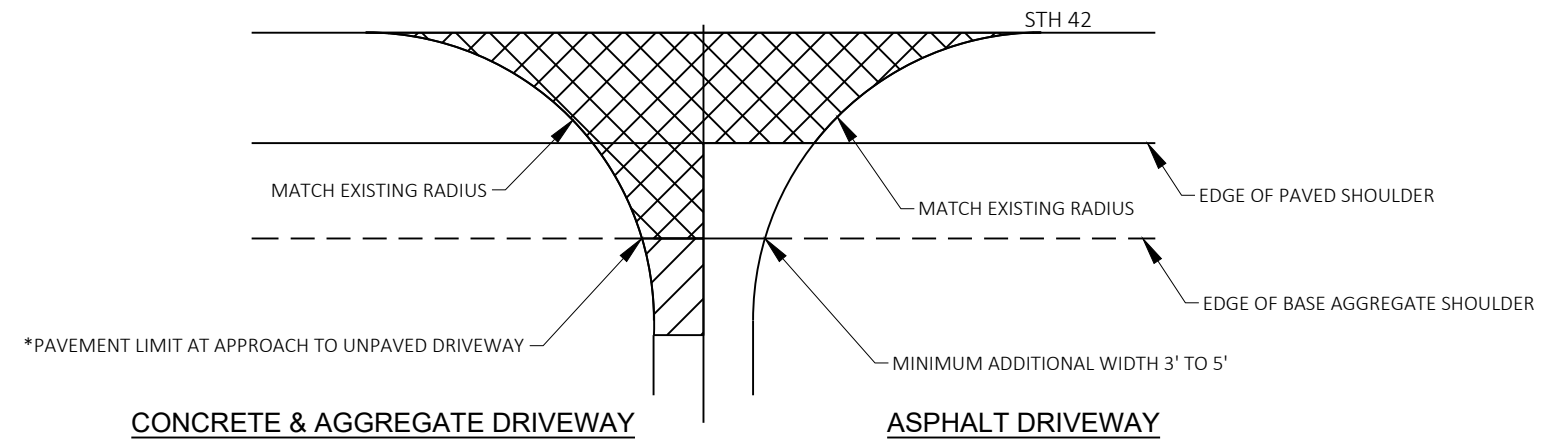


TYPICAL PROPOSED SECTION - STH 42



STA 361+50 - STA 366+62



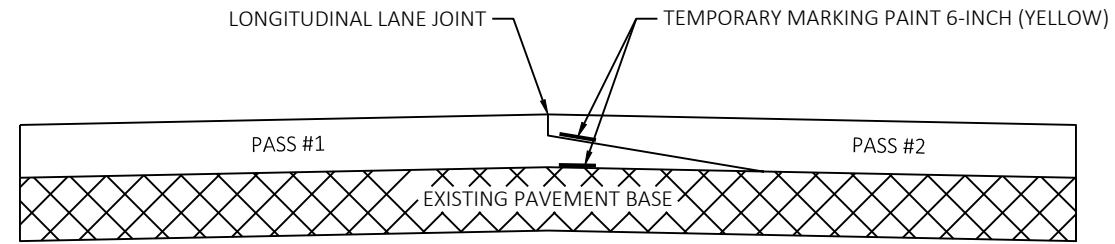
DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD



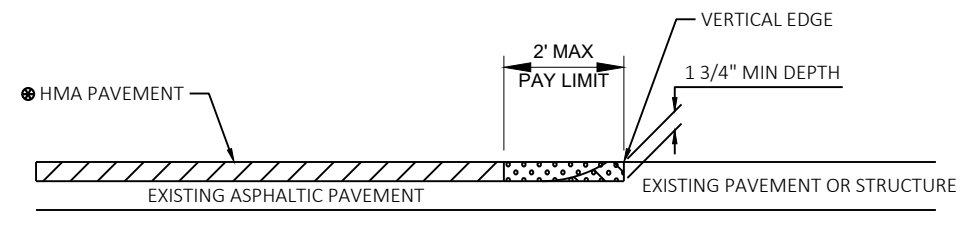
*WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT

-  REMOVING 2" ASPHALTIC SURFACE MILLING AND REPLACE WITH 2" HMA PAVEMENT
-  REPLACE IN KIND AS NECESSARY




DRIVEWAYS



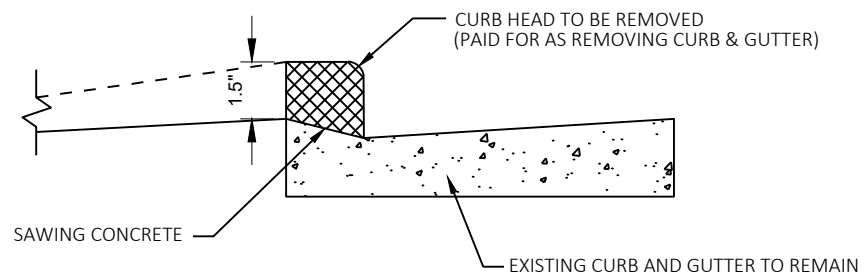
PAVEMENT MARKING DETAIL FOR TAPERED OVERLAPPING JOINTS IN HMA PAVEMENTS



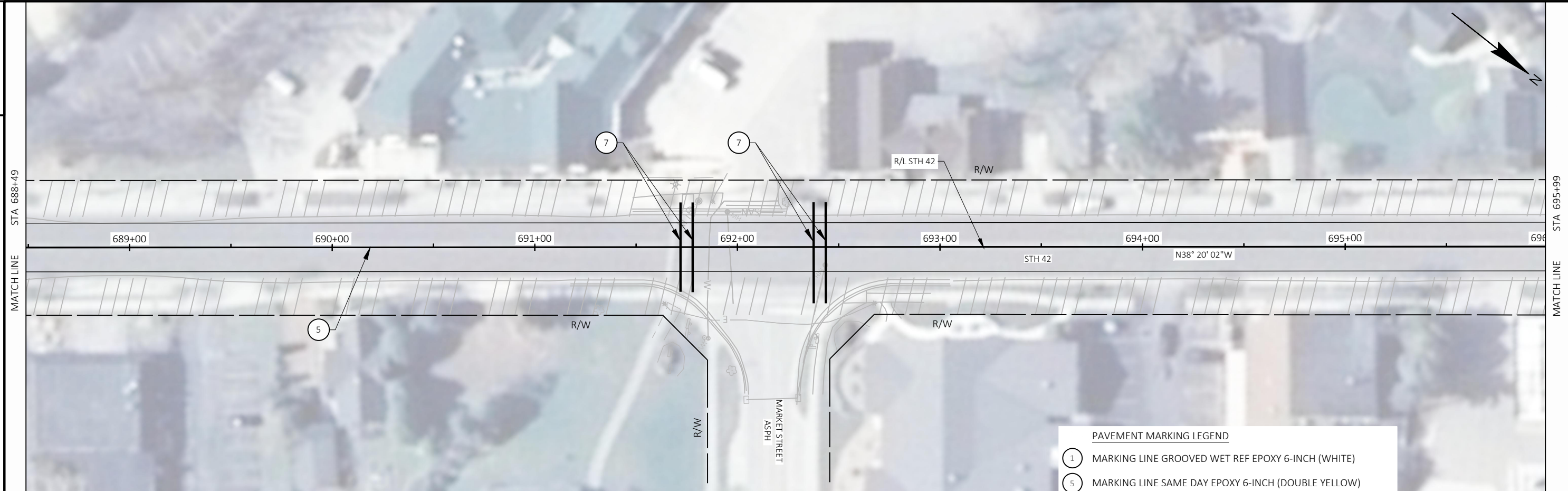
SEE TYPICAL CROSS SECTION FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS

-  REMOVING ASPHALTIC SURFACE, MILLING
-  REMOVING ASPHALTIC SURFACE, BUTT JOINTS
-  REMOVE ASPHALTIC SURFACE WEDGE AT BUTT JOINT TO CREATE VERTICAL EDGE

203 BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS (NO PROFILE CHANGE)
SEE PLAN FOR LOCATIONS



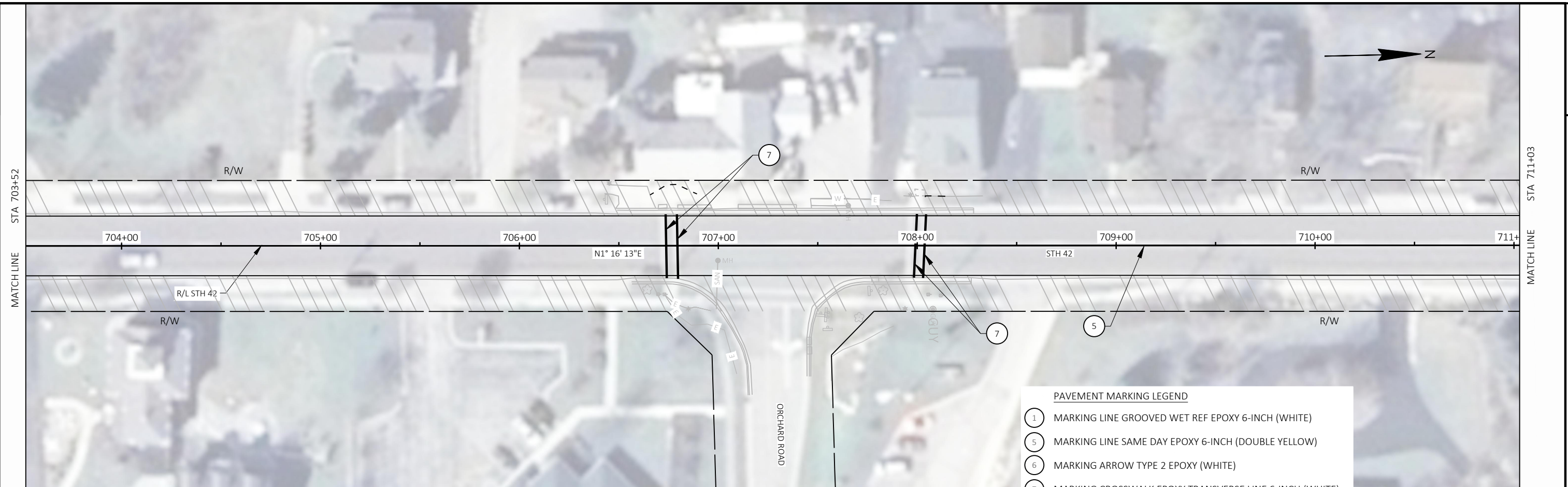
DRIVEWAY CURB AT GUARDRAIL END



PAVEMENT MARKING LEGEND

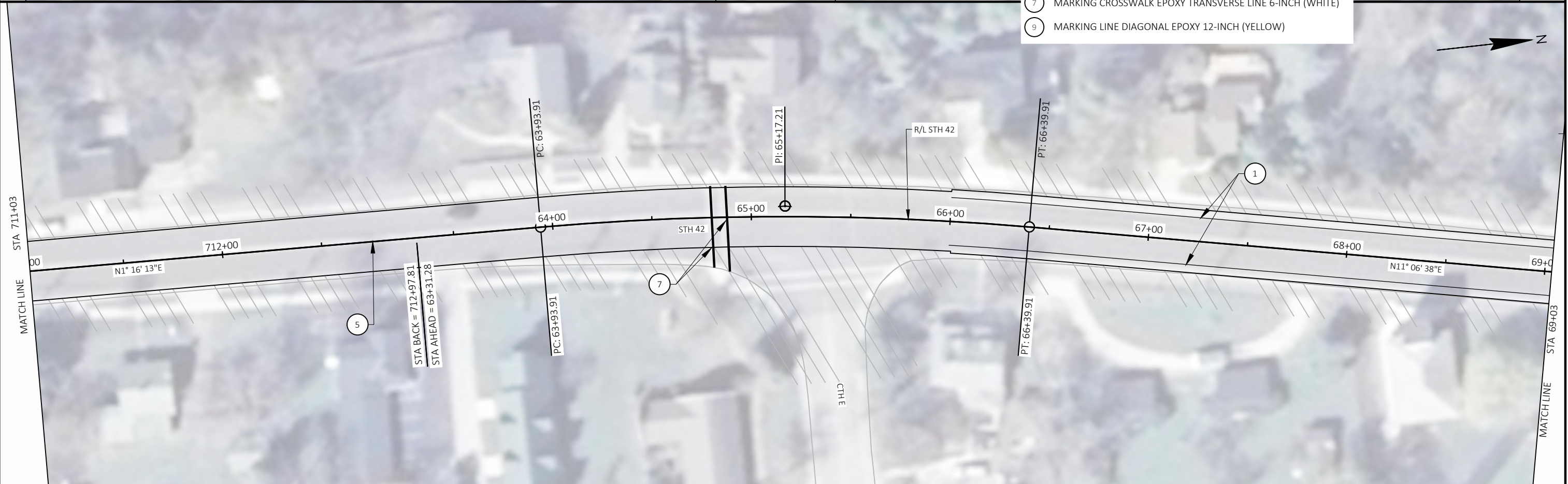
- ① MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
- ⑤ MARKING LINE SAME DAY EPOXY 6-INCH (DOUBLE YELLOW)
- ⑥ MARKING ARROW TYPE 2 EPOXY (WHITE)
- ⑦ MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- ⑨ MARKING LINE DIAGONAL EPOXY 12-INCH (YELLOW)





PAVEMENT MARKING LEGEND

- 1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
- 5 MARKING LINE SAME DAY EPOXY 6-INCH (DOUBLE YELLOW)
- 6 MARKING ARROW TYPE 2 EPOXY (WHITE)
- 7 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- 9 MARKING LINE DIAGONAL EPOXY 12-INCH (YELLOW)

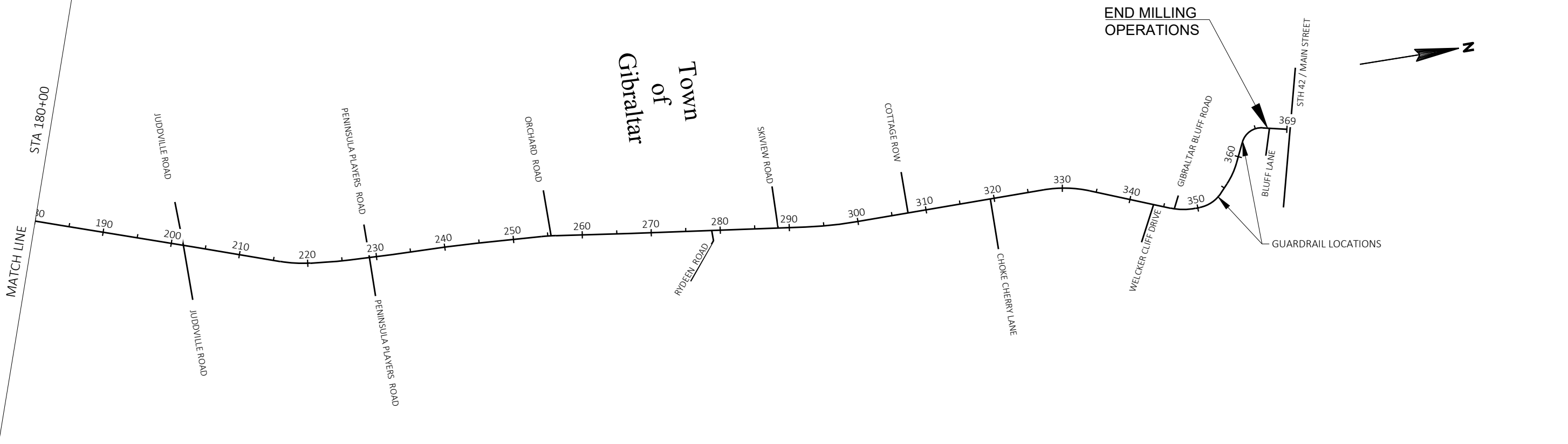
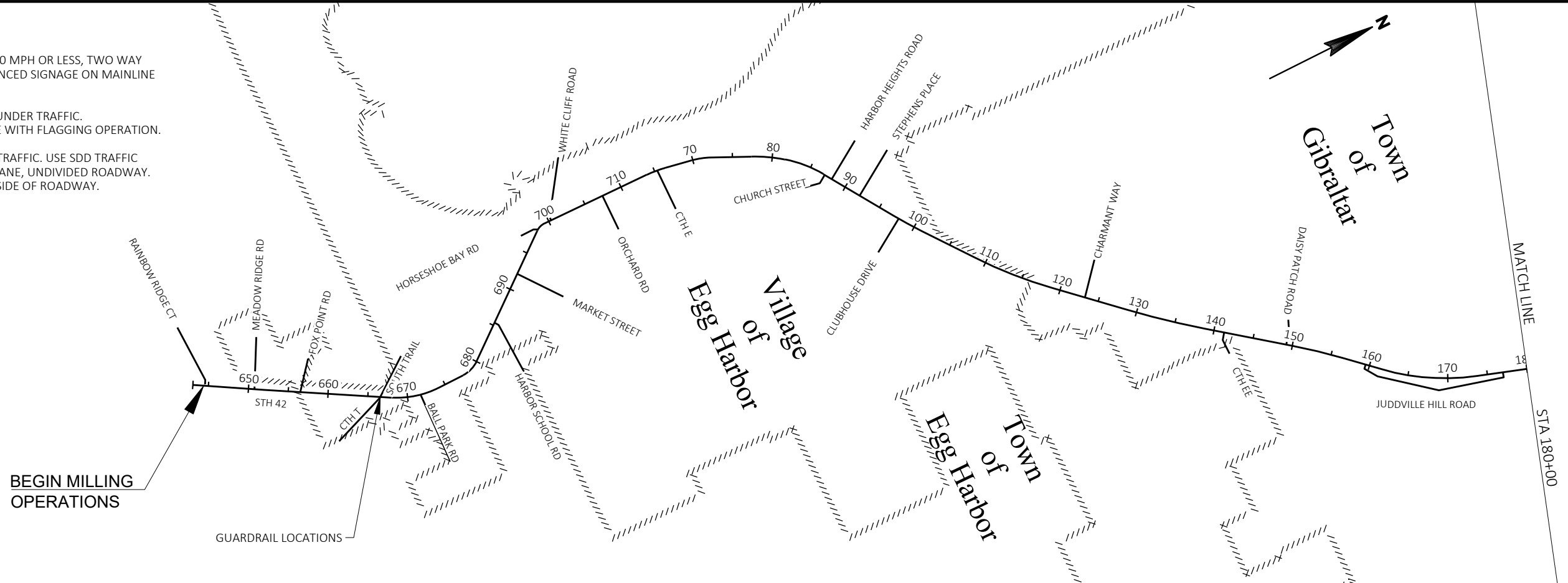


TRAFFIC CONTROL SUMMARY

USE SDD TRAFFIC, ADVANCE WARNING SIGNS 40 MPH OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC FOR ADVANCED SIGNAGE ON MAINLINE AND SIDE ROADS.

MILLING OPERATIONS ARE TO BE COMPLETED UNDER TRAFFIC. USE SDD TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION.

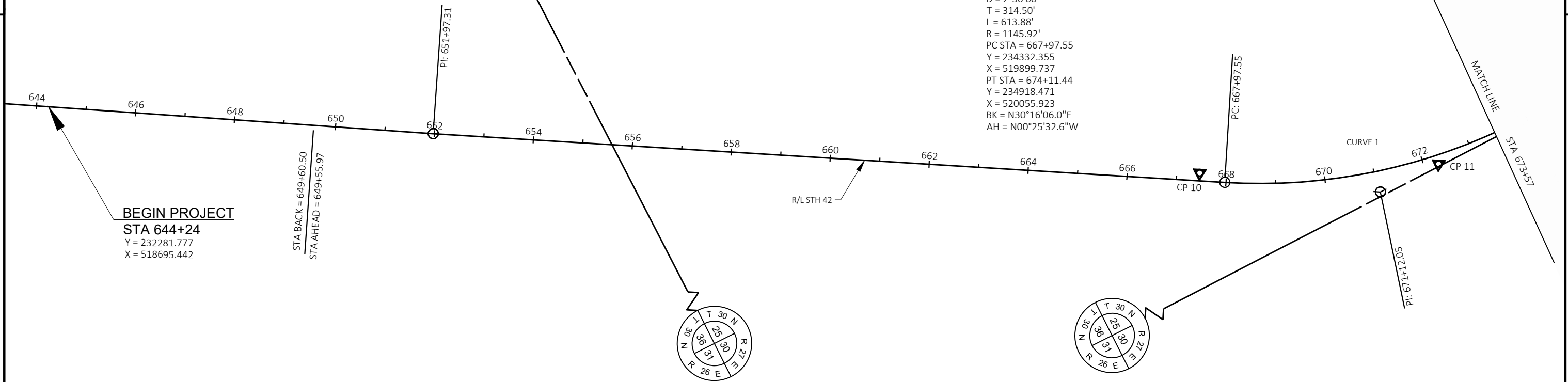
GUARDRAIL WORK TO BE PERFORMED UNDER TRAFFIC. USE SDD TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY. ALTERNATE WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY.



CONTROL POINT STATION & OFFSET TABLE						
CP POINT	STATION	OFFSET	ELEVATION	NORTHING	EASTING	DESCRIPTION
10	667+45.79	16.720'	652.431	234296.077	519859.205	PK NAIL
11	672+29.64	17.183'	656.131	234734.749	520059.866	PK NAIL

CURVE 1

PI STA = 671+12.05
 Y = 234603.980
 X = 520058.260
 DELTA = 30°41'39"
 D = 2°30'00"
 T = 314.50'
 L = 613.88'
 R = 1145.92'
 PC STA = 667+97.55
 Y = 234332.355
 X = 519899.737
 PT STA = 674+11.44
 Y = 234918.471
 X = 520055.923
 BK = N30°16'06.0"E
 AH = N00°25'32.6"W



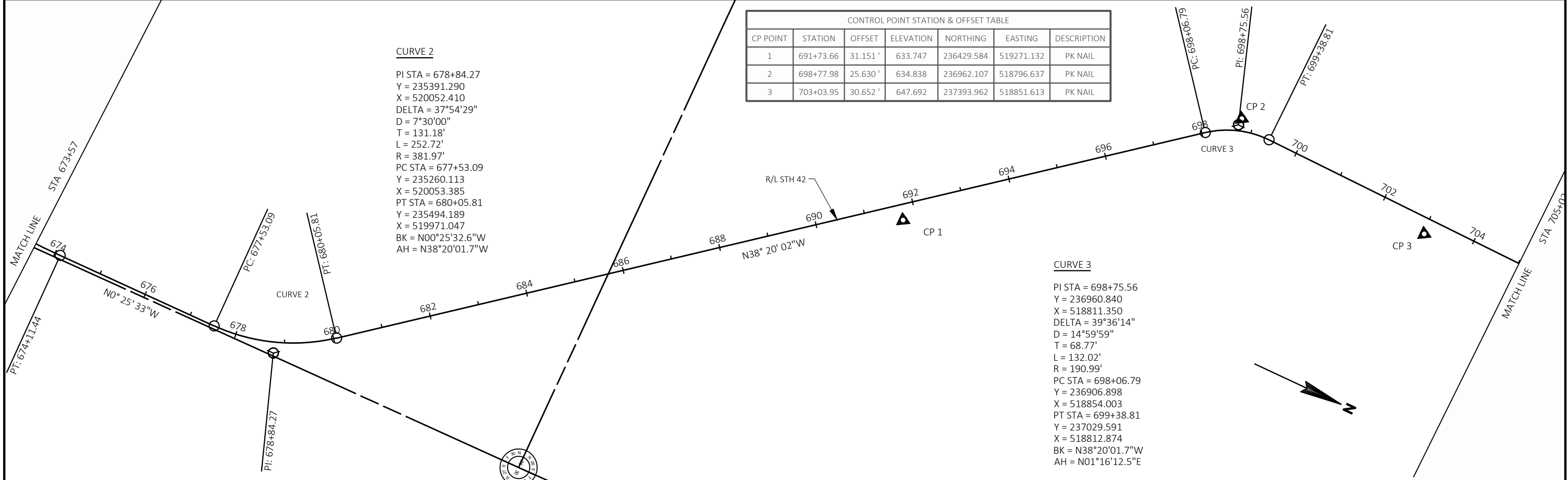
CONTROL POINT STATION & OFFSET TABLE						
CP POINT	STATION	OFFSET	ELEVATION	NORTHING	EASTING	DESCRIPTION
1	691+73.66	31.151'	633.747	236429.584	519271.132	PK NAIL
2	698+77.98	25.630'	634.838	236962.107	518796.637	PK NAIL
3	703+03.95	30.652'	647.692	237393.962	518851.613	PK NAIL

CURVE 2

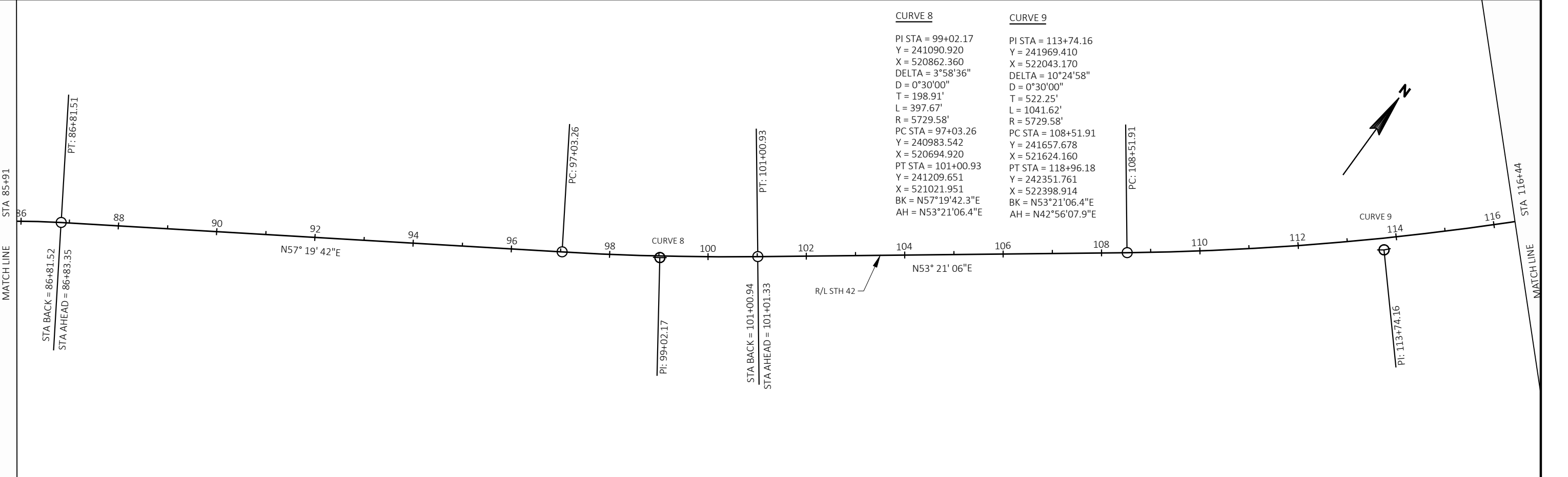
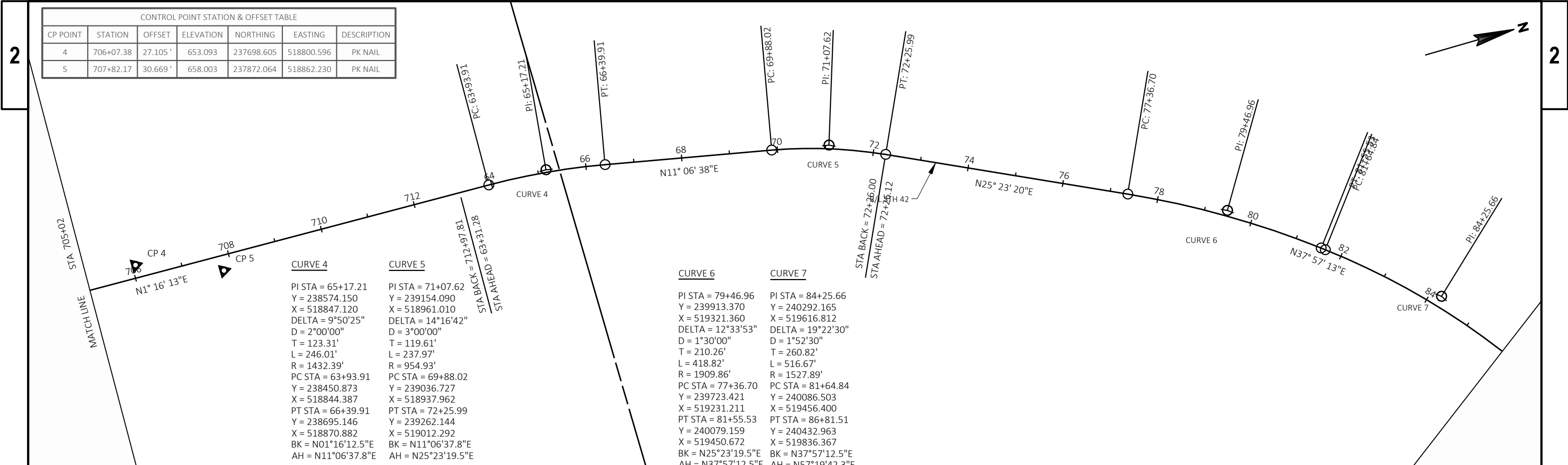
PI STA = 678+84.27
 Y = 235391.290
 X = 520052.410
 DELTA = 37°54'29"
 D = 7°30'00"
 T = 131.18'
 L = 252.72'
 R = 381.97'
 PC STA = 677+53.09
 Y = 235260.113
 X = 520053.385
 PT STA = 680+05.81
 Y = 235494.189
 X = 519971.047
 BK = N00°25'32.6"W
 AH = N38°20'01.7"W

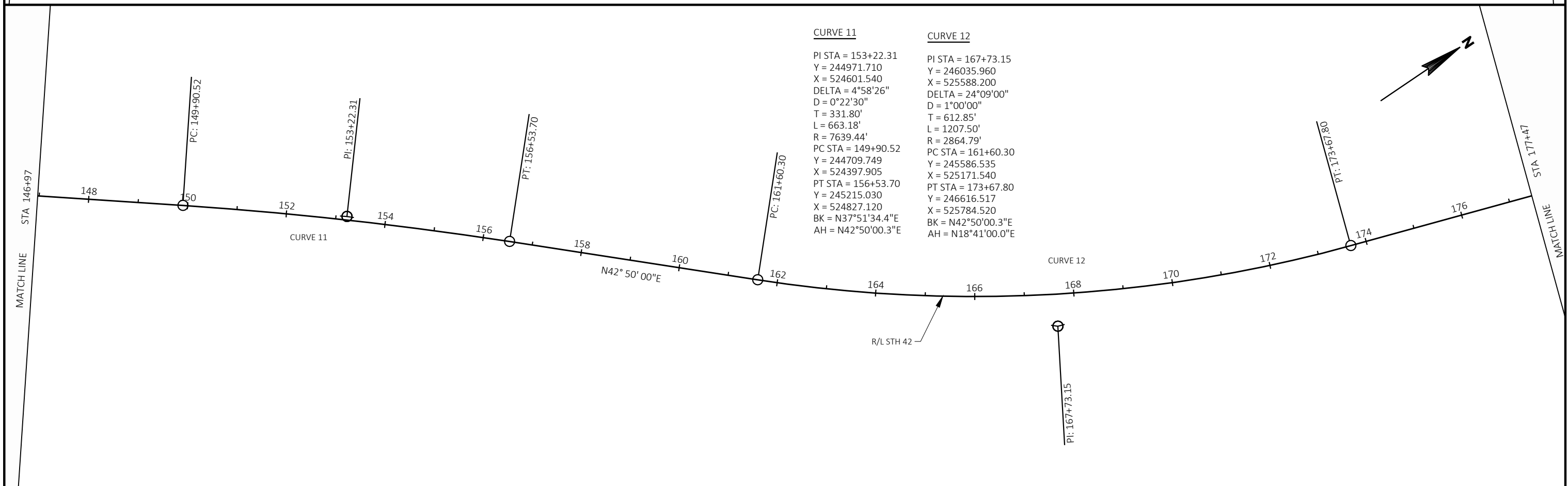
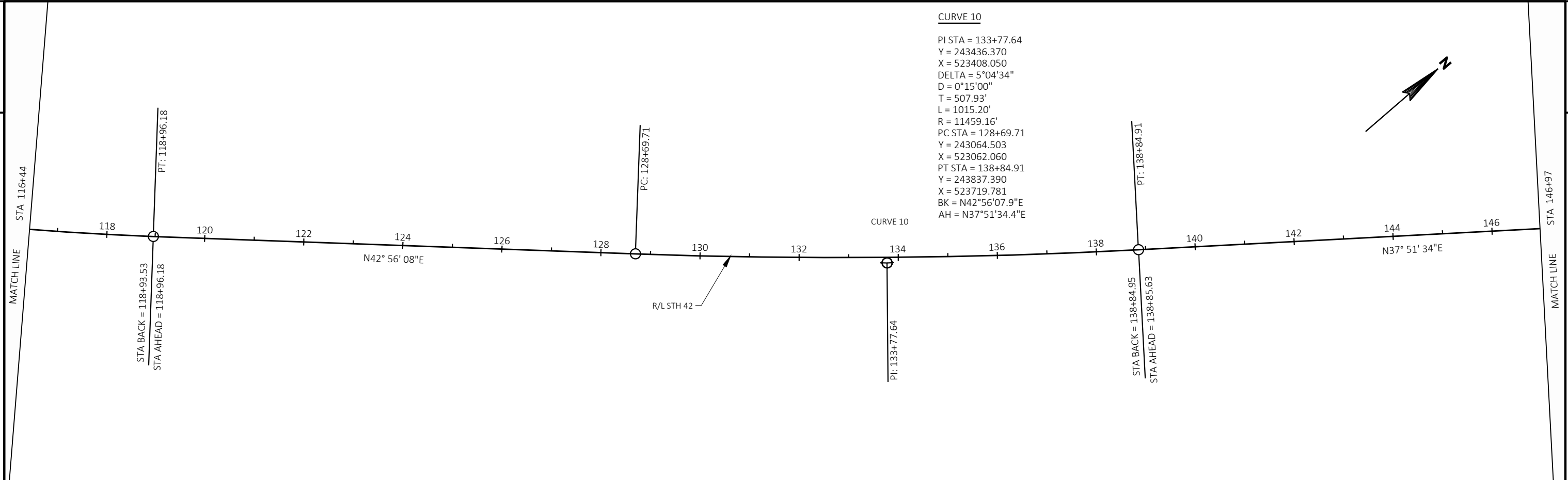
CURVE 3

PI STA = 698+75.56
 Y = 236960.840
 X = 518811.350
 DELTA = 39°36'14"
 D = 14°59'59"
 T = 68.77'
 L = 132.02'
 R = 190.99'
 PC STA = 698+06.79
 Y = 236906.898
 X = 518854.003
 PT STA = 699+38.81
 Y = 237029.591
 X = 518812.874
 BK = N38°20'01.7"W
 AH = N01°16'12.5"E

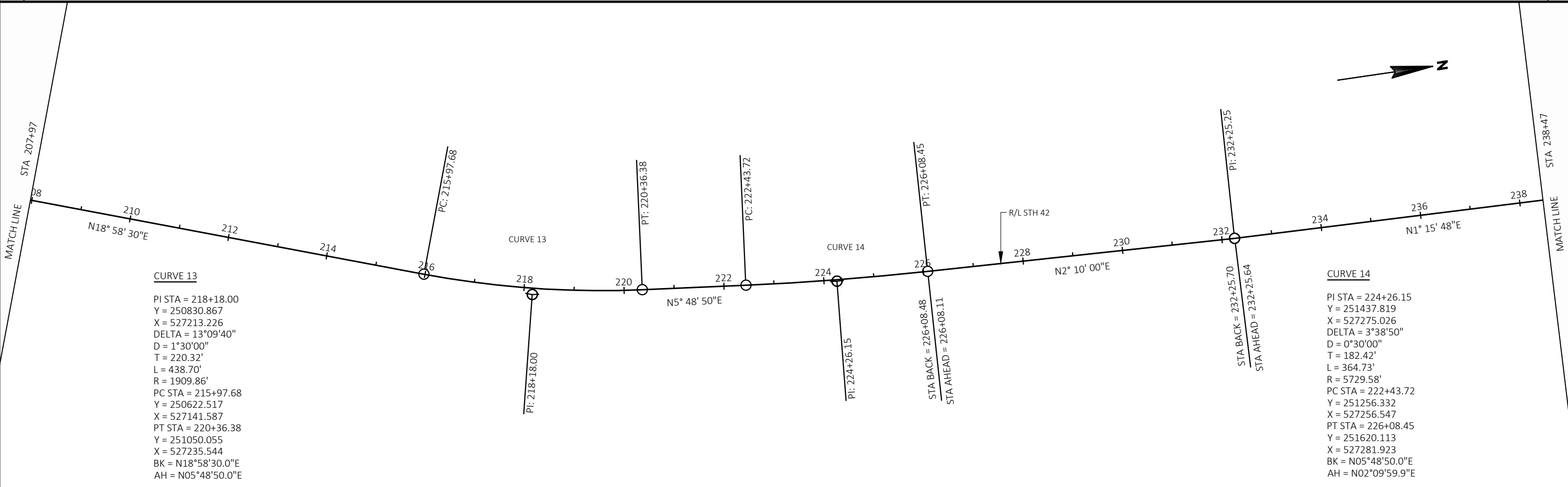
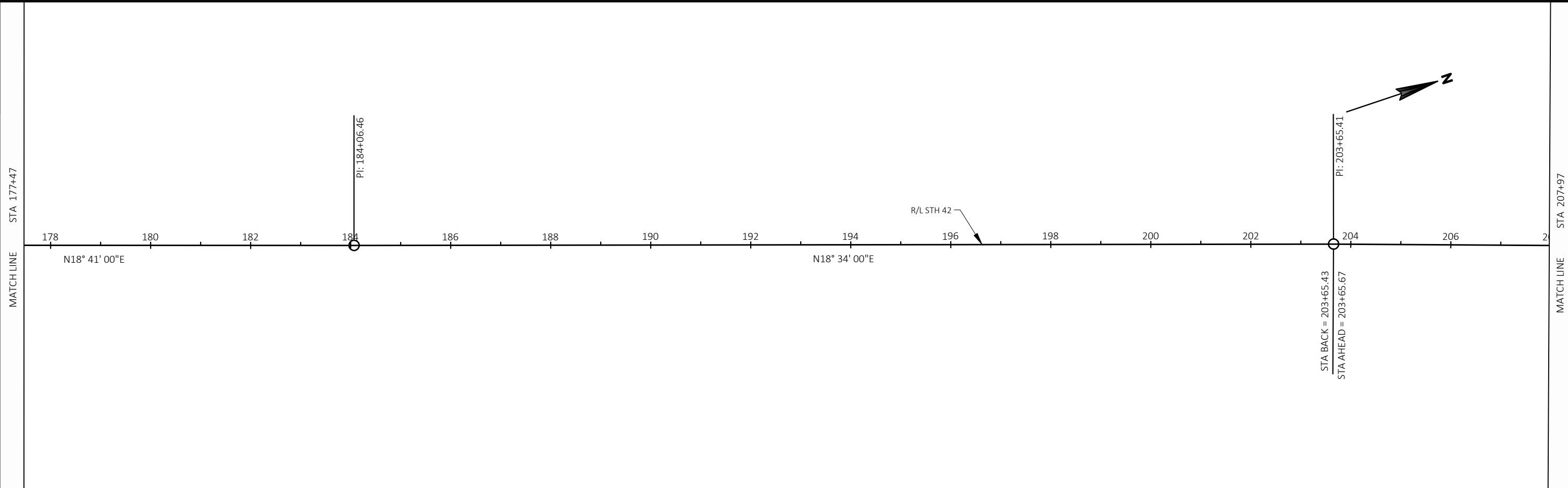


CONTROL POINT STATION & OFFSET TABLE						
CP POINT	STATION	OFFSET	ELEVATION	NORTHING	EASTING	DESCRIPTION
4	706+07.38	27.105'	653.093	237698.605	518800.596	PK NAIL
5	707+82.17	30.669'	658.003	237872.064	518862.230	PK NAIL

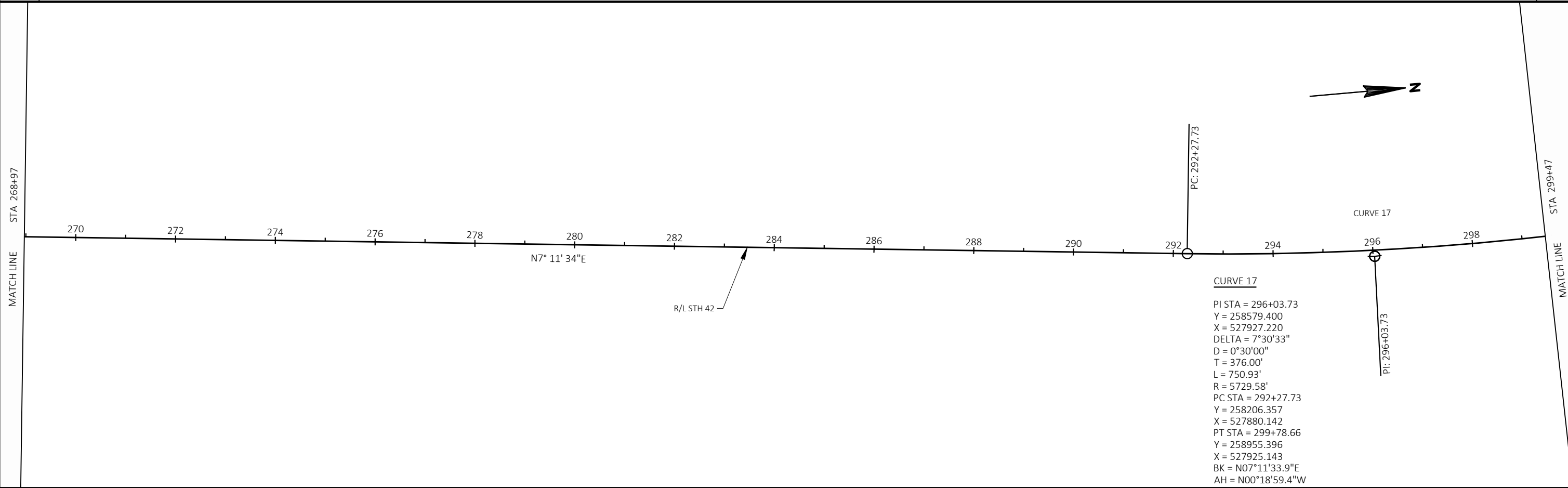
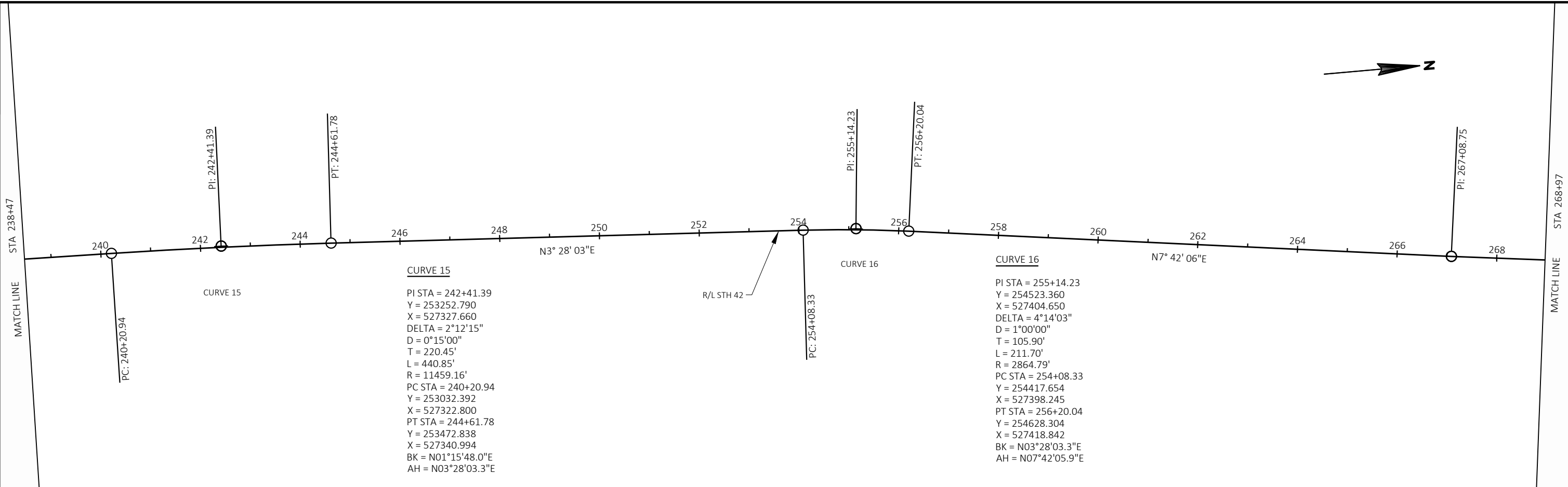




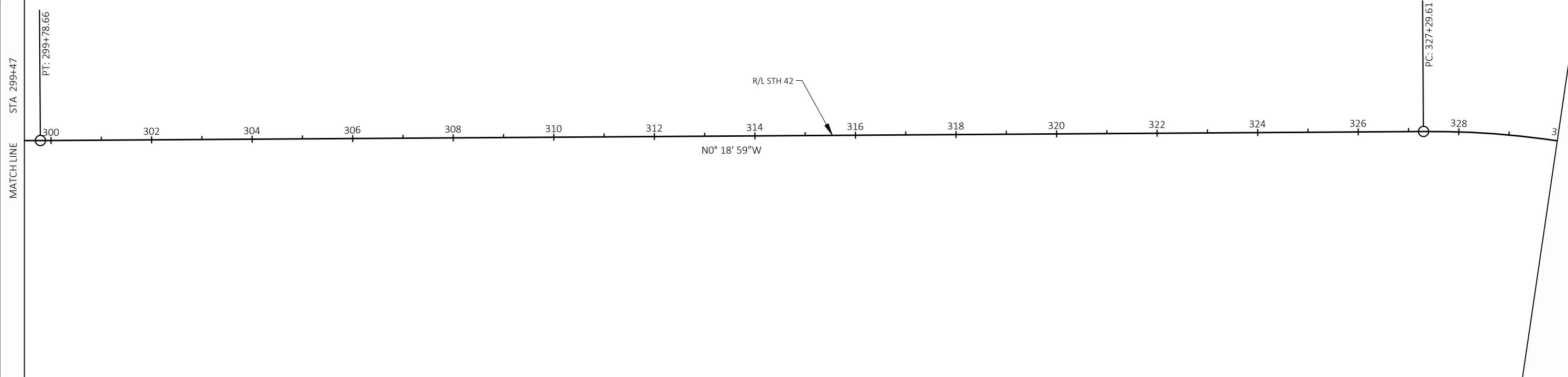
PROJECT NO: 4140-34-60	HWY: STH 42	COUNTY: DOOR	ALIGNMENT DETAILS	SHEET	E
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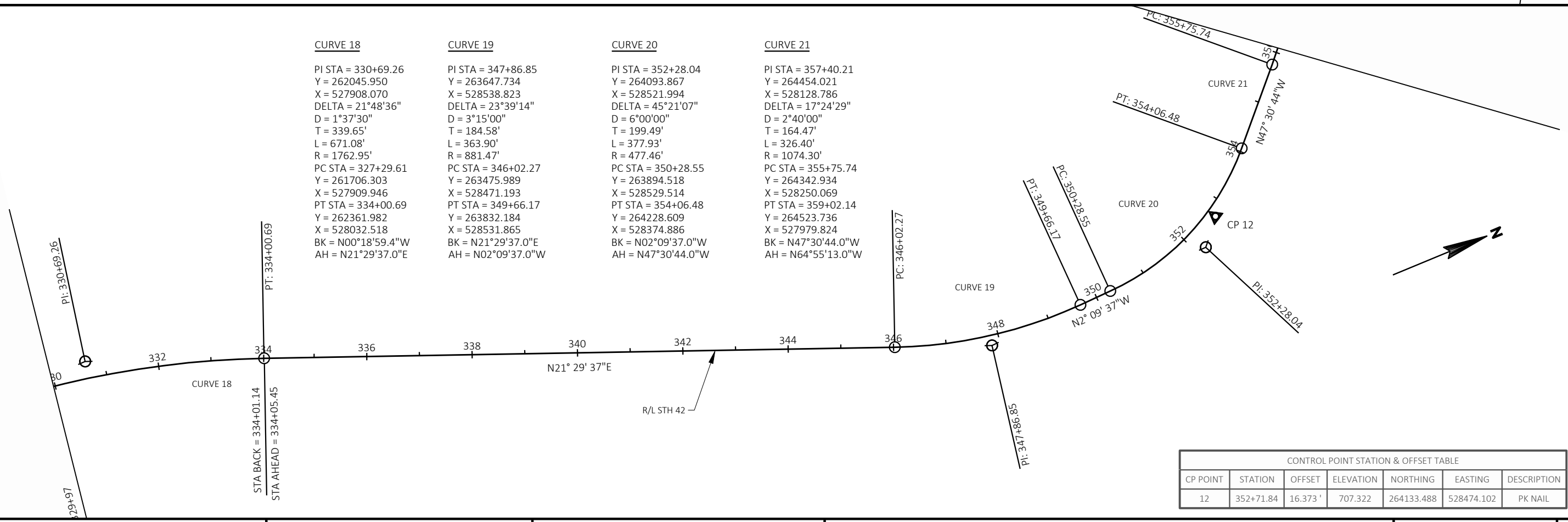
PROJECT NO: 4140-34-60	HWY: STH 42	COUNTY: DOOR	ALIGNMENT DETAILS	SHEET	E
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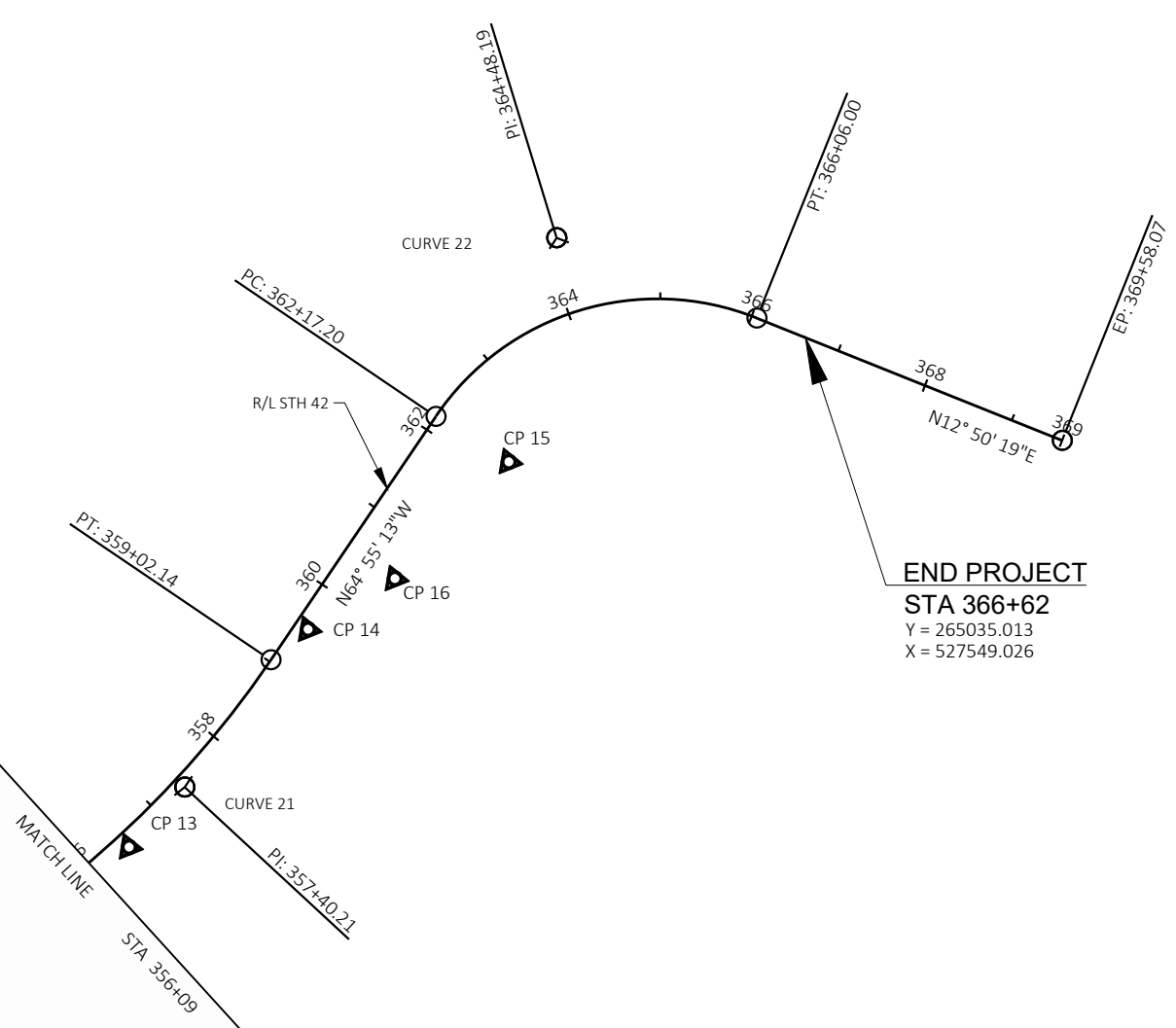
PROJECT NO: 4140-34-60	HWY: STH 42	COUNTY: DOOR	ALIGNMENT DETAILS	SHEET	E
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CURVE 18	CURVE 19	CURVE 20	CURVE 21
PI STA = 330+69.26	PI STA = 347+86.85	PI STA = 352+28.04	PI STA = 357+40.21
Y = 262045.950	Y = 263647.734	Y = 264093.867	Y = 264454.021
X = 527908.070	X = 528538.823	X = 528521.994	X = 528128.786
DELTA = 21°48'36"	DELTA = 23°39'14"	DELTA = 45°21'07"	DELTA = 17°24'29"
D = 1°37'30"	D = 3°15'00"	D = 6°00'00"	D = 2°40'00"
T = 339.65'	T = 184.58'	T = 199.49'	T = 164.47'
L = 671.08'	L = 363.90'	L = 377.93'	L = 326.40'
R = 1762.95'	R = 881.47'	R = 477.46'	R = 1074.30'
PC STA = 327+29.61	PC STA = 346+02.27	PC STA = 350+28.55	PC STA = 355+75.74
Y = 261706.303	Y = 263475.989	Y = 263894.518	Y = 264342.934
X = 527909.946	X = 528471.193	X = 528529.514	X = 528250.069
PT STA = 334+00.69	PT STA = 349+66.17	PT STA = 354+06.48	PT STA = 359+02.14
Y = 262361.982	Y = 263832.184	Y = 264228.609	Y = 264523.736
X = 528032.518	X = 528531.865	X = 528374.886	X = 527979.824
BK = N00°18'59.4"W	BK = N21°29'37.0"E	BK = N02°09'37.0"W	BK = N47°30'44.0"W
AH = N21°29'37.0"E	AH = N02°09'37.0"W	AH = N47°30'44.0"W	AH = N64°55'13.0"W



CP POINT	STATION	OFFSET	ELEVATION	NORTHING	EASTING	DESCRIPTION
12	352+71.84	16.373'	707.322	264133.488	528474.102	PK NAIL

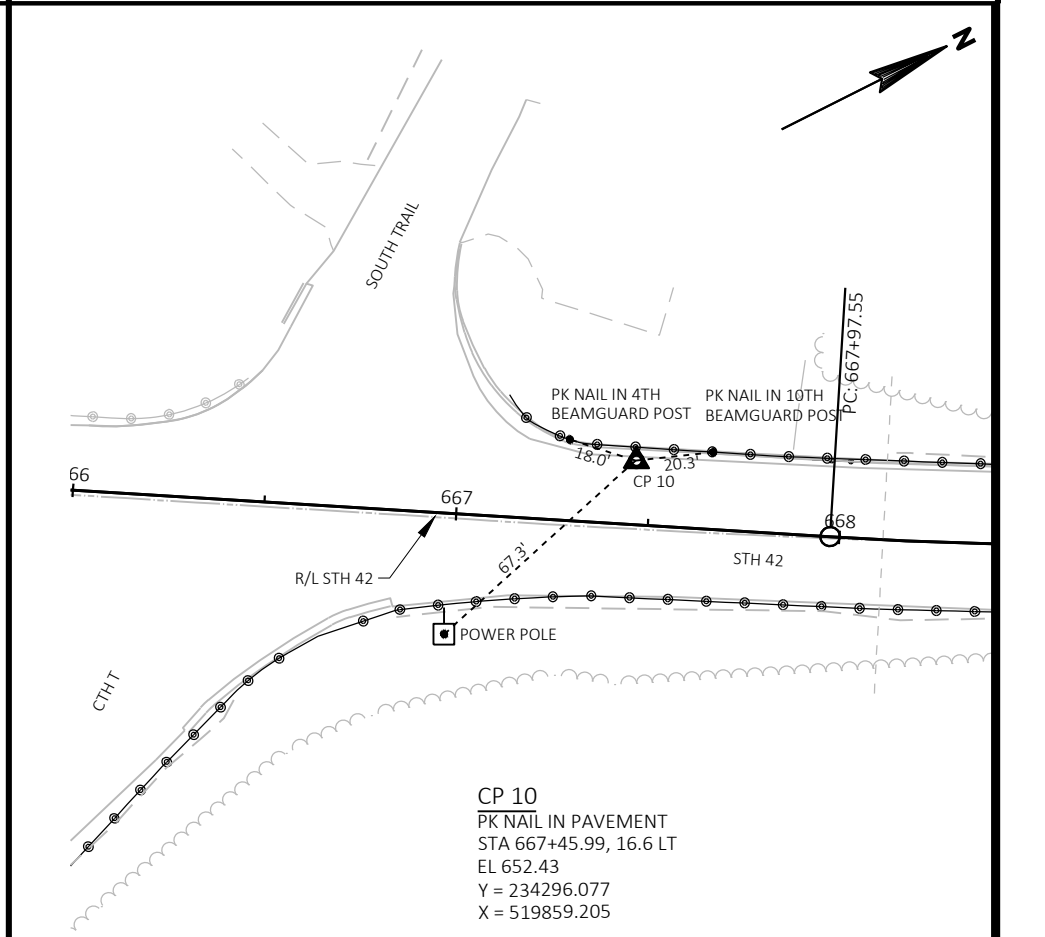
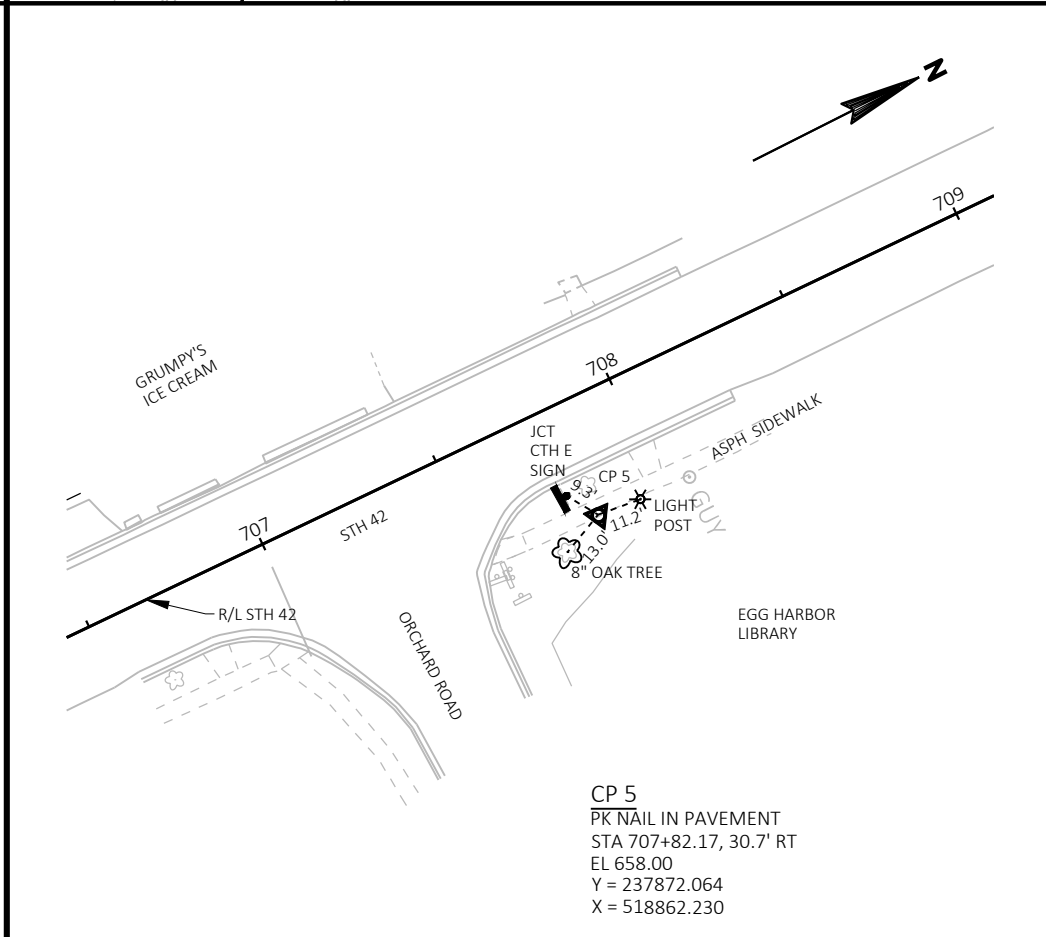
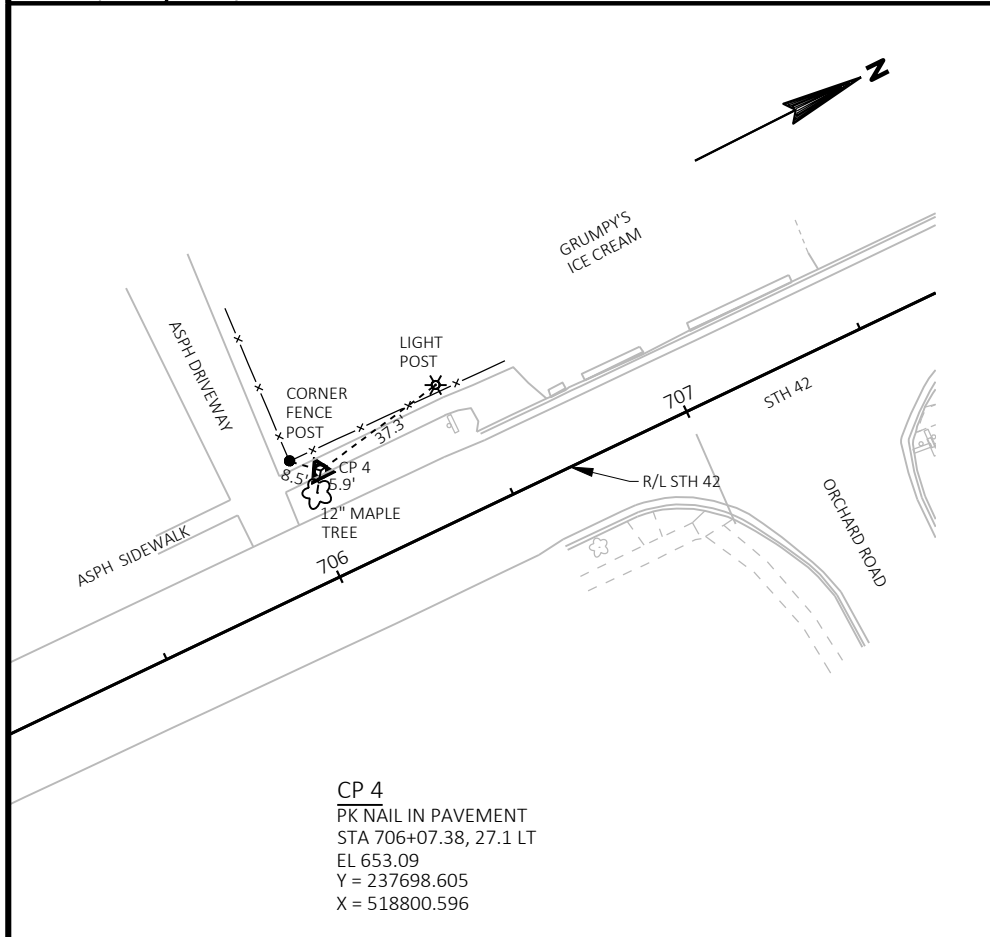
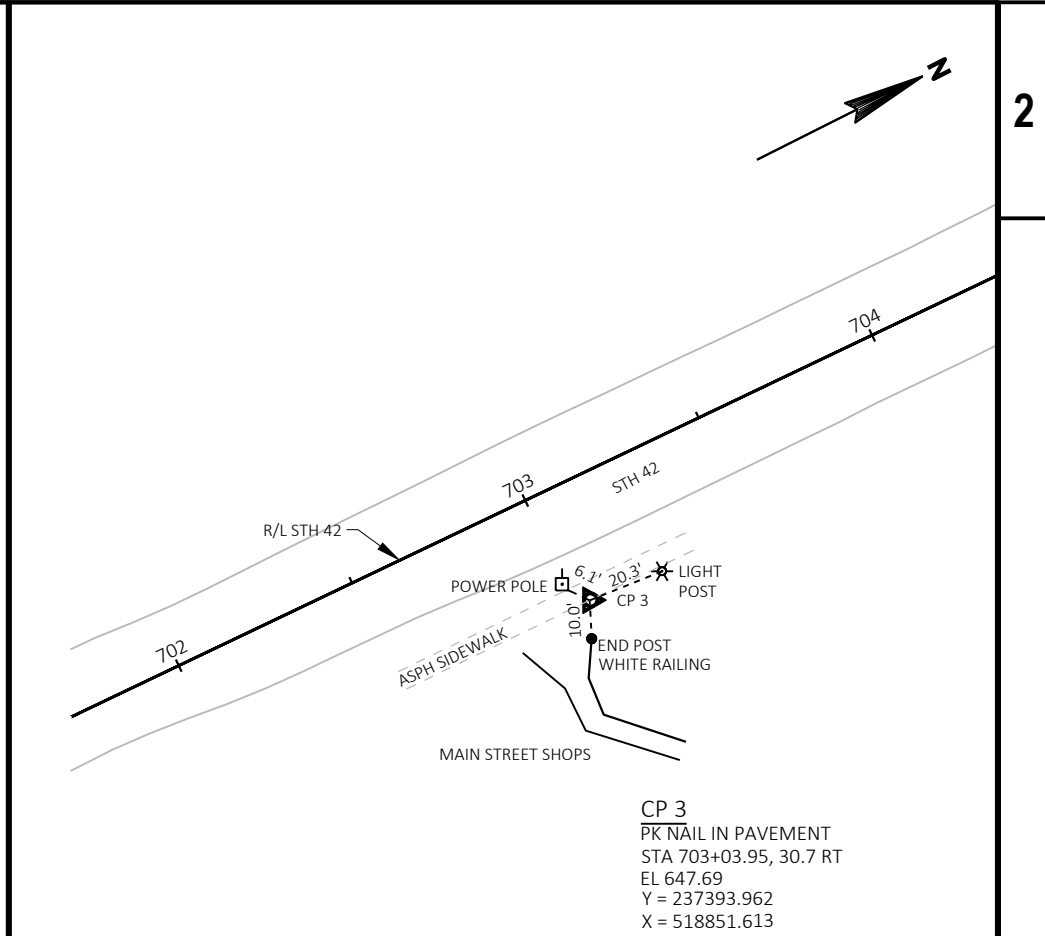
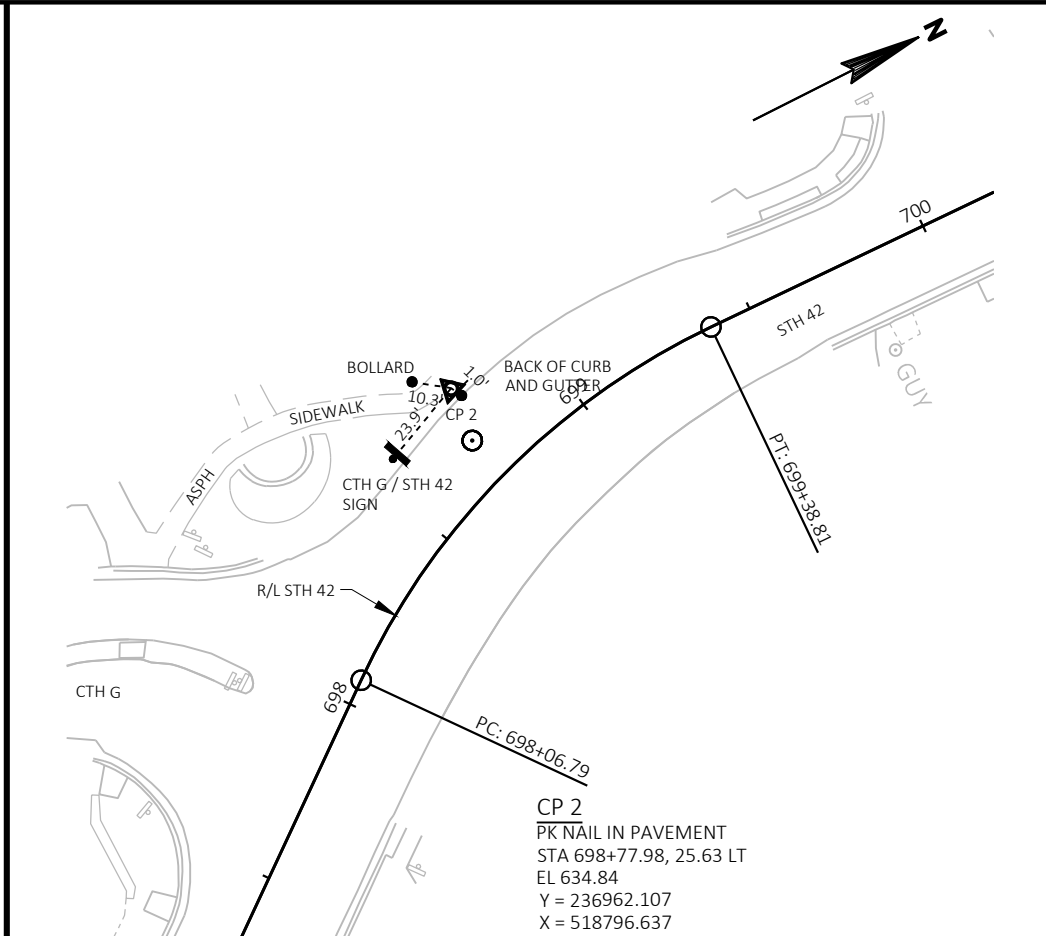
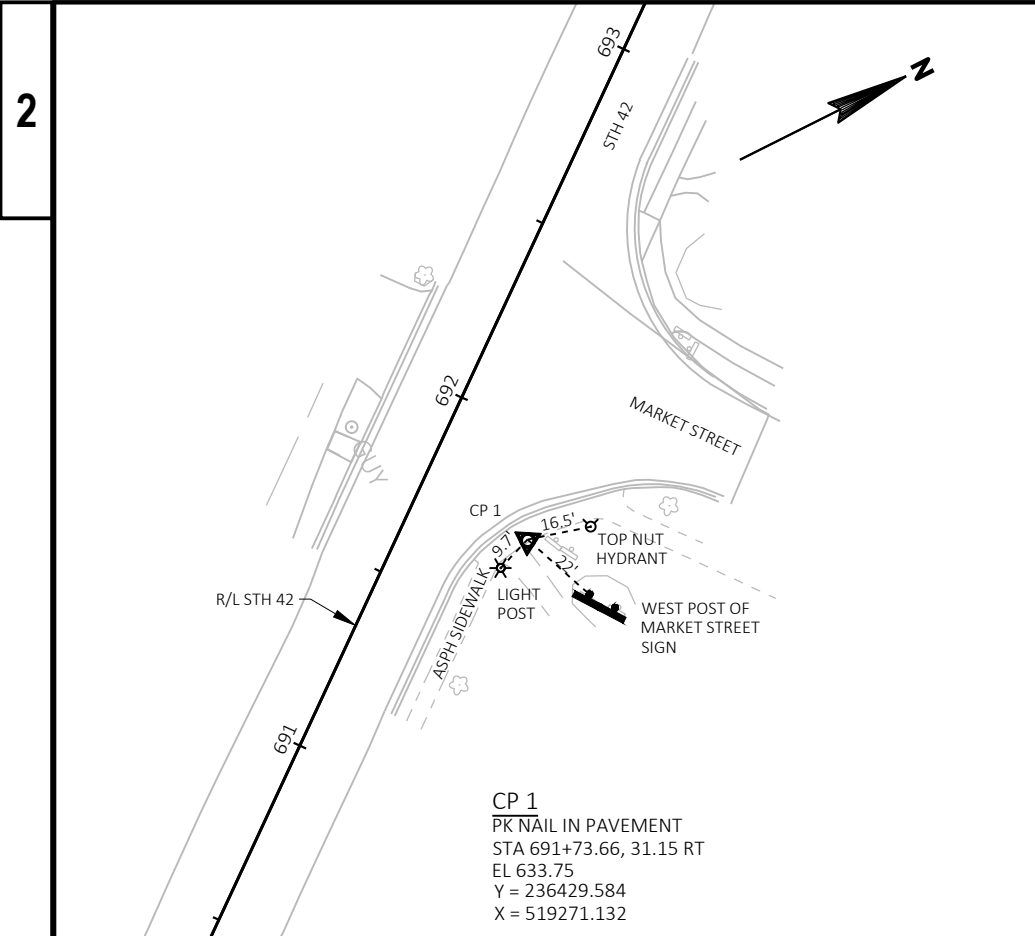


END PROJECT
STA 366+62
 Y = 265035.013
 X = 527549.026

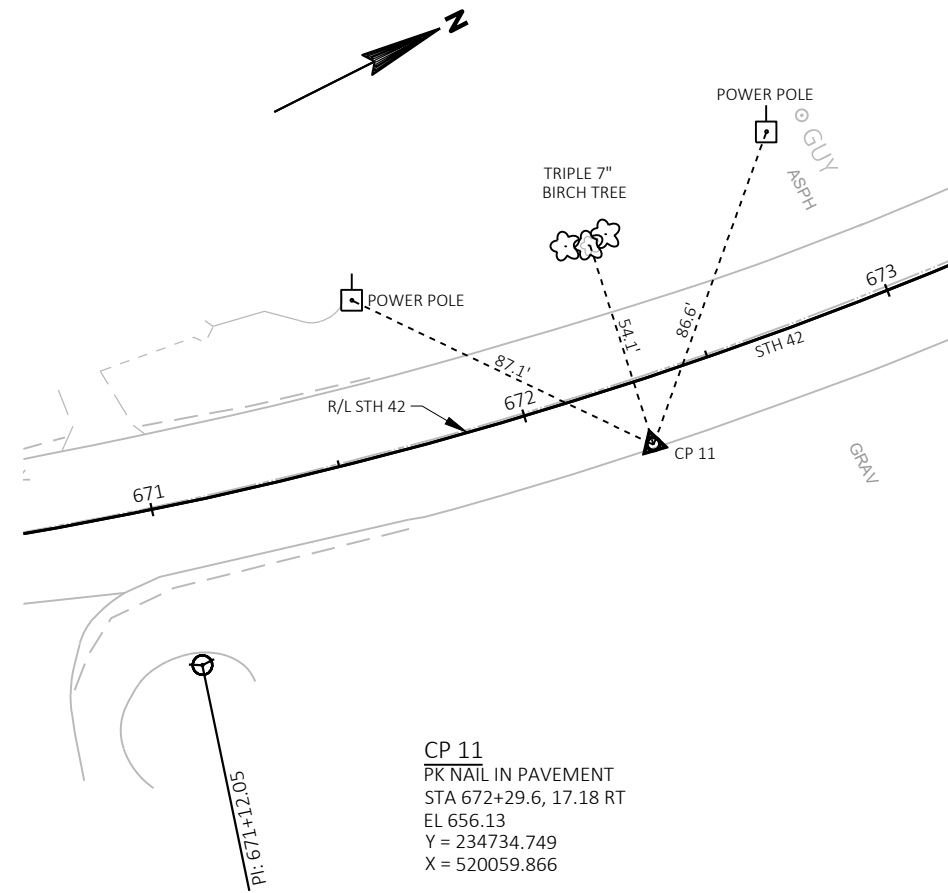
CURVE 22

PI STA = 364+48.19
 Y = 264755.196
 X = 527485.255
 DELTA = 77°45'32"
 D = 10°00'00"
 T = 230.99'
 L = 388.80'
 R = 286.48'
 PC STA = 362+17.20
 Y = 264657.284
 X = 527694.468
 PT STA = 366+06.00
 Y = 264980.411
 X = 527536.582
 BK = N64°55'13.0"W
 AH = N12°50'19.0"E

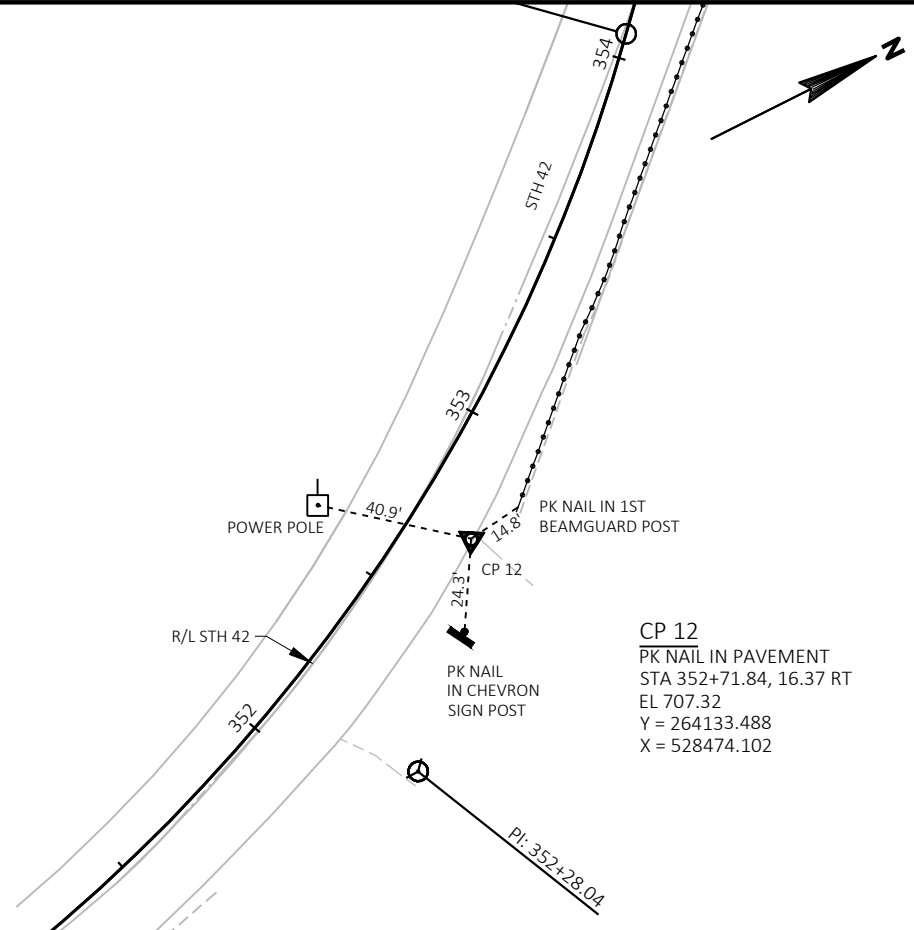
CONTROL POINT STATION & OFFSET TABLE						
CP POINT	STATION	OFFSET	ELEVATION	NORTHING	EASTING	DESCRIPTION
13	356+53.27	15.566'	694.628	264405.401	528200.714	PK NAIL
14	359+52.37	14.593'	675.644	264558.245	527940.515	PK NAIL
15	362+23.75	91.910'	642.947	264742.458	527729.423	PK NAIL
16	360+49.50	61.189'	644.103	264641.618	527872.297	PK NAIL



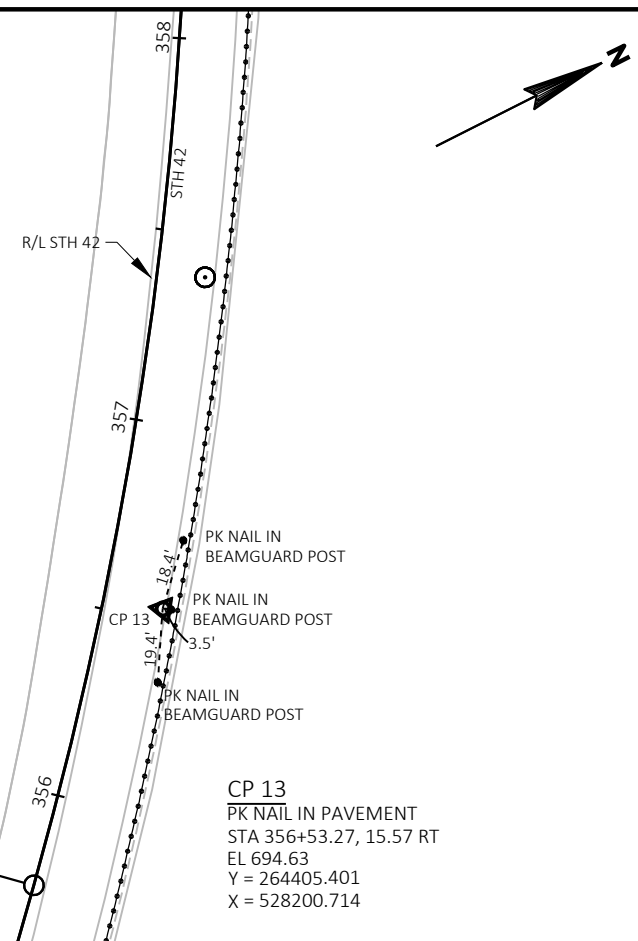
PROJECT NO: 4140-34-60	HWY: STH 42	COUNTY: DOOR	CONTROL POINT TIES	SHEET	E
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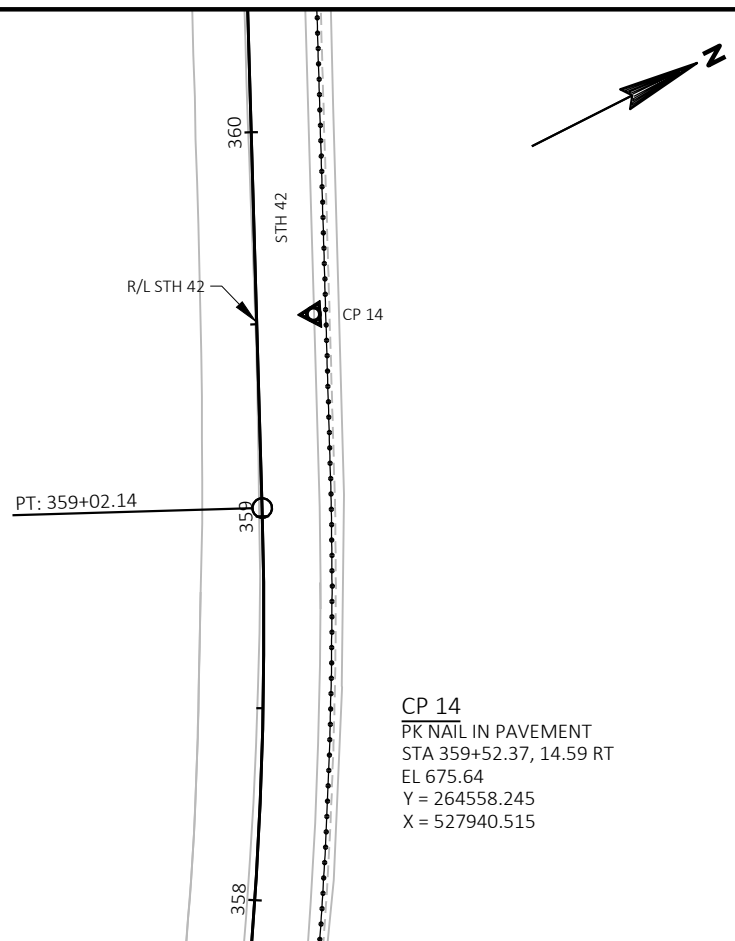
CP 11
 PK NAIL IN PAVEMENT
 STA 672+29.6, 17.18 RT
 EL 656.13
 Y = 234734.749
 X = 520059.866



CP 12
 PK NAIL IN PAVEMENT
 STA 352+71.84, 16.37 RT
 EL 707.32
 Y = 264133.488
 X = 528474.102



CP 13
 PK NAIL IN PAVEMENT
 STA 356+53.27, 15.57 RT
 EL 694.63
 Y = 264405.401
 X = 528200.714



CP 14
 PK NAIL IN PAVEMENT
 STA 359+52.37, 14.59 RT
 EL 675.64
 Y = 264558.245
 X = 527940.515

Estimate Of Quantities

4140-34-60

Line	Item	Item Description	Unit	Total	Qty
0002	204.0110	Removing Asphaltic Surface	SY	59.000	59.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	146.000	146.000
0006	204.0120	Removing Asphaltic Surface Milling	SY	145,621.000	145,621.000
0008	204.0150	Removing Curb & Gutter	LF	256.000	256.000
0010	204.0165	Removing Guardrail	LF	296.000	296.000
0012	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 4140-34-60	EACH	1.000	1.000
0014	213.0100	Finishing Roadway (project) 01. 4140-34-60	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	772.000	772.000
0018	455.0605	Tack Coat	GAL	10,208.000	10,208.000
0020	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0022	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000	1.000
0024	460.2005	Incentive Density PWL HMA Pavement	DOL	11,680.000	11,680.000
0026	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	9,140.000	9,140.000
0028	460.2010	Incentive Air Voids HMA Pavement	DOL	17,590.000	17,590.000
0030	460.6224	HMA Pavement 4 MT 58-28 S	TON	17,582.000	17,582.000
0032	465.0105	Asphaltic Surface	TON	14.000	14.000
0034	465.0110	Asphaltic Surface Patching	TON	179.000	179.000
0036	465.0520	Asphaltic Rumble Strips, Shoulder	LF	18,000.000	18,000.000
0038	465.0560	Asphaltic Rumble Strips, Centerline	LF	9,000.000	9,000.000
0040	614.0010	Barrier System Grading Shaping Finishing	EACH	5.000	5.000
0042	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	5.000	5.000
0044	618.0100	Maintenance And Repair of Haul Roads (project) 01. 4140-34-60	EACH	1.000	1.000
0046	619.1000	Mobilization	EACH	1.000	1.000
0048	624.0100	Water	MGAL	7.700	7.700
0050	628.1504	Silt Fence	LF	835.000	835.000
0052	628.1520	Silt Fence Maintenance	LF	835.000	835.000
0054	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0056	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0058	642.5201	Field Office Type C	EACH	1.000	1.000
0060	643.0300	Traffic Control Drums	DAY	8,000.000	8,000.000
0062	643.0900	Traffic Control Signs	DAY	4,200.000	4,200.000
0064	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0066	643.3165	Temporary Marking Line Paint 6-Inch	LF	72,910.000	72,910.000
0068	643.5000	Traffic Control	EACH	1.000	1.000
0070	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	85,210.000	85,210.000
0072	646.4720	Marking Line Same Day Epoxy 6-Inch	LF	56,210.000	56,210.000
0074	646.5020	Marking Arrow Epoxy	EACH	8.000	8.000
0076	646.7120	Marking Diagonal Epoxy 12-Inch	LF	54.000	54.000
0078	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	708.000	708.000
0080	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	256.000	256.000
0082	650.8000	Construction Staking Resurfacing Reference	LF	36,550.000	36,550.000
0084	650.9911	Construction Staking Supplemental Control (project) 01. 4140-34-60	EACH	1.000	1.000
0086	650.9920	Construction Staking Slope Stakes	LF	514.000	514.000
0088	690.0250	Sawing Concrete	LF	270.000	270.000
0090	740.0440	Incentive IRI Ride	DOL	68,880.000	68,880.000
0092	SPV.0180	Special 01. Micromilling	SY	5,590.000	5,590.000

MILLING

204.0115 204.0120 SPV.0180.01

CATEGORY	STATION	- STATION	LOCATION	REMOVING ASPHALTIC SURFACE BUTT JOINTS		REMOVING ASPHALTIC SURFACE MILLING		MICROMILLING
				SY		SY		SY
0010	644+24	- 647+89	MAINLINE	15		1,640		--
	647+89	- 666+50	MAINLINE	8		8,420		--
	666+50	- 668+05	MAINLINE	6		951		--
	675+80	- 712+98	MAINLINE	--		13,300		--
	63+31	- 87+34	MAINLINE	8		8,840		--
	87+34	- 351+00	MAINLINE	100		106,000		--
	351+00	- 361+50	MAINLINE	--		4,200		--
	361+50	- 366+62	MAINLINE	9		2,270		5,590
TOTALS				146		145,621		5,590

REMOVING CURB & GUTTER

204.0150

CATEGORY	STATION	- STATION	LOCATION	LF	COMMENTS
0010	665+13	- 665+59	RT	50	CTH T SE QUAD
	665+73	- 666+28	LT	56	CTH T SW QUAD
	361+65	- 363+20	RT	150	BEAMGUARD EAT
TOTALS				256	

REMOVING PAVEMENT ITEMS

204.0110
REMOVING ASPHALTIC SURFACE

CATEGORY	STATION	- STATION	LOCATION	SY	COMMENTS
0010	665+13	- 665+63	RT	12	BG EAT
	665+73	- 666+31	LT	13	BG EAT
	361+65	- 363+20	RT	34	BG EAT
TOTALS				59	

REMOVING GUARDRAIL

204.0165

CATEGORY	STATION	- STATION	LOCATION	LF	COMMENTS
0010	664+88	- 665+65	RT	85	--
	665+48	- 666+37	LT	92	--
	50+97'T'	- 51+46'T'	LT	50	CTH T
	352+87	- 353+26	RT	27	--
	361+40	- 361+68	RT	42	--
TOTALS				296	

BASE AGGREGATE DENSE

305.0110 624.0100

CATEGORY	STATION	- STATION	LOCATION	3/4-INCH TON	WATER MGAL
0010	644+24	- 647+89	1-2' SHLD	21	0.2
	87+34	- 351+00	1' SHLD	749	7.5
	351+00	- 353+00	1' SHLD RT	3	0.0
	351+65	- 353+26	BG RT	6	0.1
	50+97'T'	- 52+64'T'	BG LT (CTH T)	14	0.1
TOTALS				772	7.7

ASPHALTIC ITEMS

CATEGORY	STATION	-	STATION	LOCATION	TACK COAT GAL	HMA PAVEMENT PWL TEST STRIP VOLUMETRICS EACH	HMA PAVEMENT PWL TEST STRIP DENSITY EACH	HMA PAVEMENT 4 MT 58-28 S TON	ASPHALTIC SURFACE TON	ASPHALTIC SURFACE PATCHING TON	ASPHALTIC RUMBLE STRIPS, SHOULDER LF	ASPHALTIC RUMBLE STRIPS, CENTERLINE LF	COMMENTS
0010	644+24	-	647+89	MAINLINE	116	1	1	199	--	2	--	--	PREPARE FOUNDATION FOR ASPHALTIC PAVING
	647+89	-	666+50	MAINLINE	590	--	--	1,020	6	11	--	--	PREPARE FOUNDATION FOR ASPHALTIC PAVING
	666+50	-	668+05	MAINLINE	67	--	--	115	--	2	--	--	PREPARE FOUNDATION FOR ASPHALTIC PAVING
	675+80	-	712+98	MAINLINE	931	--	--	1,600	--	16	--	--	PREPARE FOUNDATION FOR ASPHALTIC PAVING
	63+31	-	87+34	MAINLINE	620	--	--	1,070	--	11	--	--	PREPARE FOUNDATION FOR ASPHALTIC PAVING
	87+34	-	351+00	MAINLINE	7,430	--	--	12,800	--	128	--	--	PREPARE FOUNDATION FOR ASPHALTIC PAVING
	215+00	-	305+00	MAINLINE	--	--	--	--	--	--	18,000	9,000	PREPARE FOUNDATION FOR ASPHALTIC PAVING
	351+00	-	361+50	MAINLINE	294	--	--	504	--	6	--	--	PREPARE FOUNDATION FOR ASPHALTIC PAVING
	361+50	-	366+62	MAINLINE	160	--	--	274	8	3	--	--	PREPARE FOUNDATION FOR ASPHALTIC PAVING
TOTALS					10,208			17,582	14	179	18,000	9,000	

LOCATION	STATION	MIXTURE USE:	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
							MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
12 FOOT DRIVING LANE	644+24 TO 668+05, 675+80 TO 712+98, 63+31 TO 366+62	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	11,680	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
SHOULDERS	644+24 TO 668+05, 675+80 TO 712+98, 63+31 TO 366+62	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	5,910	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE

BARRIER SYSTEM GRADING SHAPING FINISHING

CATEGORY	STATION	-	STATION	LOCATION	HIDE							COMMENTS	
					614.0010 EACH	*BORROW CY	AREA SF	*SALVAGED TOPSOIL SY	*FERTILIZER TYPE B CWT	*SEEDING MIXTURE #30 LB	*SEED WATER MGAL		*EROSION MAT CLASS I TYPE B SY
0010	664+88	-	665+59	RT	1	50	1,271	150	1	3	29	150	--
	665+48	-	666+27	LT	1	30	574	70	1	2	13	70	--
	50+97'T'	-	52+64'T'	CTH T LT	1	70	1,977	220	1	4	45	220	--
	351+65	-	353+26	RT	1	20	714	80	1	2	17	80	--
	361+41	-	363+20	RT	1	50	1,058	120	1	3	24	120	--
	UNDISTRIBUTED				--	55	1,400	160	2	4	32	160	25% ESTIMATED
TOTALS					5	275		800	7.0	18	160	800	

*FOR INFORMATIONAL PURPOSES ONLY

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

CATEGORY	STATION	-	STATION	LOCATION	EACH
0010	664+88	-	665+38	RT	1
	665+48	-	665+98	LT	1
	50+97'T'	-	51+46'T'	CTH T LT	1
	352+78	-	353+26	RT	1
	361+41	-	361+90	RT	1
TOTALS					5

EROSION CONTROL

CATEGORY	STATION	- STATION	LOCATION	SILT FENCE		MOBILIZATIONS		COMMENTS
				628.1504	628.1520	628.1905	628.1910	
0010				MAINTENANCE LF	LF	EROSION CONTROL EACH	EMERGENCY EROSION CONTROL EACH	
			PROJECT	--	--	2	1	--
	664+88	- 665+59	RT	105	105	--	--	--
	665+48	- 666+27	LT	85	85	--	--	--
	50+97"	- 52+64"	CTH T LT	175	175	--	--	--
	351+65	- 353+26	RT	120	120	--	--	--
	361+41	- 363+20	RT	180	180	--	--	--
			UNDISTRIBUTED	170	170	--	--	25% ESTIMATED
TOTALS				835	835	2	1	

TRAFFIC CONTROL, DRUMS, BARRICADES, WARNING LIGHTS, AND SIGNS

CATEGORY	ROADWAY/ INTERSECTION	LOCATION	TRAFFIC CONTROL		COMMENTS		
			DRUMS DAYS	SIGNS DAYS			
0010			643.0300	643.0900	643.1050	643.5000	
	STH 42	MAINLINE	8,000	4,200	14	1	STH 42
TOTALS			8,000	4,200	14	1	

PAVEMENT MARKING ITEMS

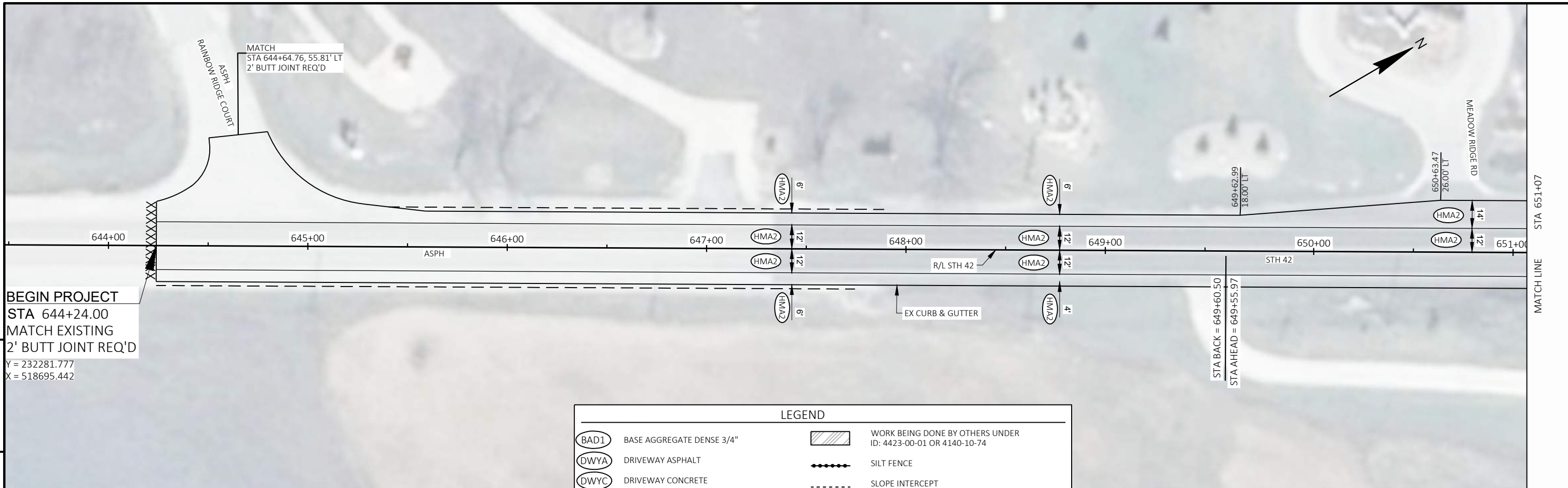
CATEGORY	STATION	- STATION	LOCATION	643.3165		646.2040		646.4720		646.5020		646.7120		646.7420		COMMENTS
				TEMPORARY MARKING LINE PAINT 6-INCH YELLOW LF	MARKING LINE GROOVED WET REF EPOXY 6-INCH YELLOW LF	MARKING LINE SAME DAY EPOXY 6-INCH WHITE LF	MARKING ARROW EPOXY WHITE EACH	MARKING DIAGONAL EPOXY 12-INCH YELLOW LF	MARKING CROSSWALK EPOXY TRANSVERSE 6-INCH WHITE LF							
0010				LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF		
	644+24	- 668+05	MAINLINE	4,770	--	4,770	4,770	--	--	--	--	--	--	--	--	
	675+80	- 696+00	MAINLINE	4,040	--	2,040	4,040	--	--	--	--	--	--	--	--	
	696+00	- 702+50	MAINLINE	1,300	--	--	2,600	8	54	--	--	--	--	--	--	TWLTL
	702+50	- 712+98	MAINLINE	2,100	--	--	2,100	--	--	--	--	--	--	--	--	
	63+31	- 366+62	MAINLINE	42,700	--	60,400	42,700	--	--	--	--	--	--	--	--	
	215+00	- 305+00	RUMBLE STRIPS	18,000	18,000	--	--	--	--	--	--	--	--	--	--	
			HARBOR SCHOOL	--	--	--	--	--	--	--	--	--	147	--	INTERSECTION	
			MARKET	--	--	--	--	--	--	--	--	--	188	--	INTERSECTION	
			HORSESHOE BAY	--	--	--	--	--	--	--	--	--	80	--	INTERSECTION	
			WHITE CLIFF	--	--	--	--	--	--	--	--	--	169	--	INTERSECTION	
			ORCHARD	--	--	--	--	--	--	--	--	--	60	--	INTERSECTION	
			CTH E	--	--	--	--	--	--	--	--	--	64	--	INTERSECTION	
TOTALS				72,910	85,210	56,210	8	54	708							

CONSTRUCTION STAKING

CATEGORY	STATION	- STATION	LOCATION	650.5500		650.8000		650.9911		650.9920	
				CURB GUTTER AND CURB & GUTTER LF	RESURFACING REFERENCE LF	SUPPLEMENTAL CONTROL (01. 4140-34-60) EACH	SLOPE STAKES LF				
0010				LF	LF	LF	LF	LF	LF	LF	LF
	644+24	- 668+50	MAINLINE	106	2,430	1	317				
	675+80	- 712+98	MAINLINE	--	3,720	--	--				
	63+31	- 366+62	MAINLINE	150	30,400	--	197				
TOTALS					256	36,550	1	514			

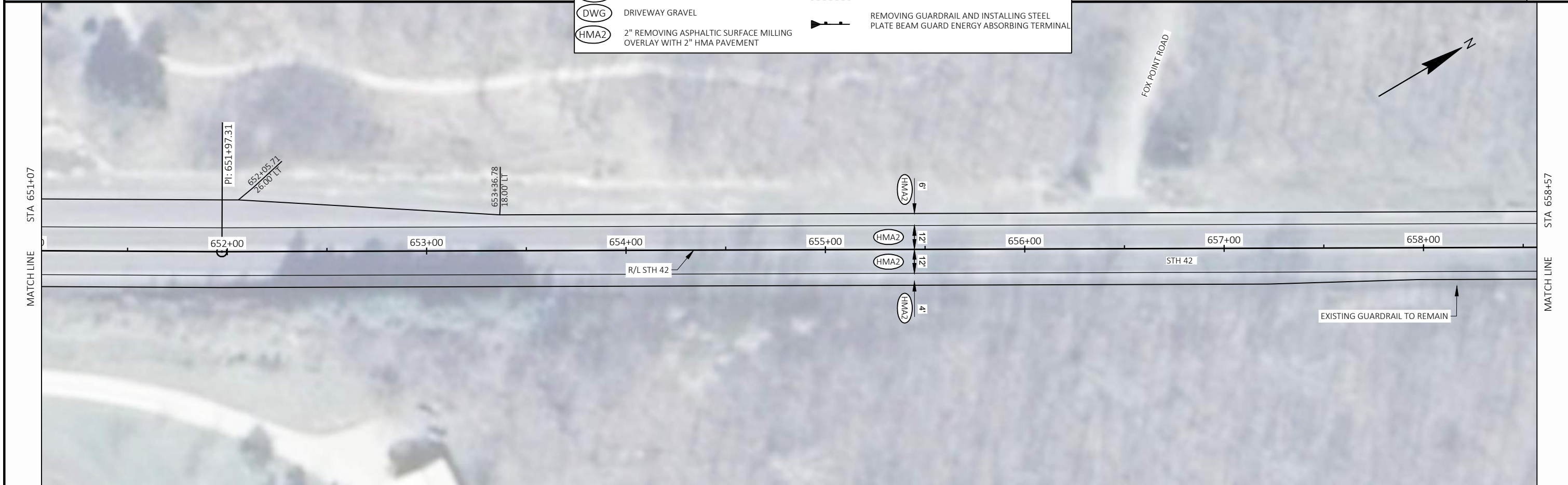
SAWING PAVEMENT ITEMS

CATEGORY	STATION	- STATION	LOCATION	690.0250	
				CONCRETE LF	COMMENTS
0010				LF	
	665+13	- 665+63	RT	57	BG EAT
	665+73	- 666+31	LT	63	BG EAT
	361+65	- 363+20	RT	150	BG EAT
TOTALS				270	

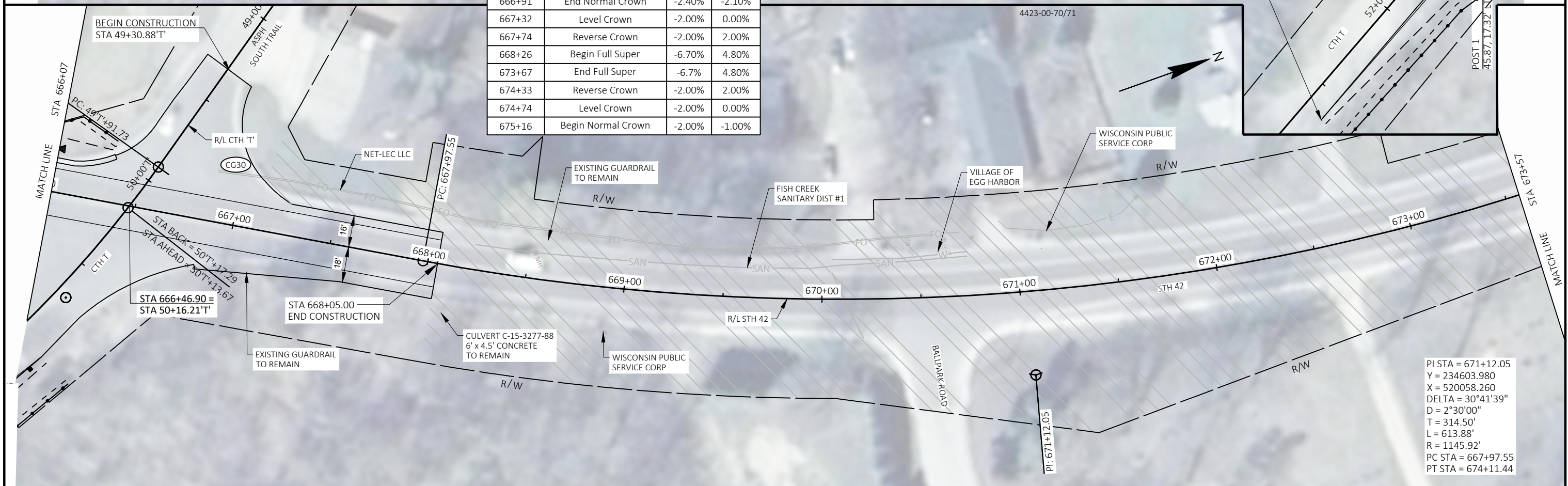
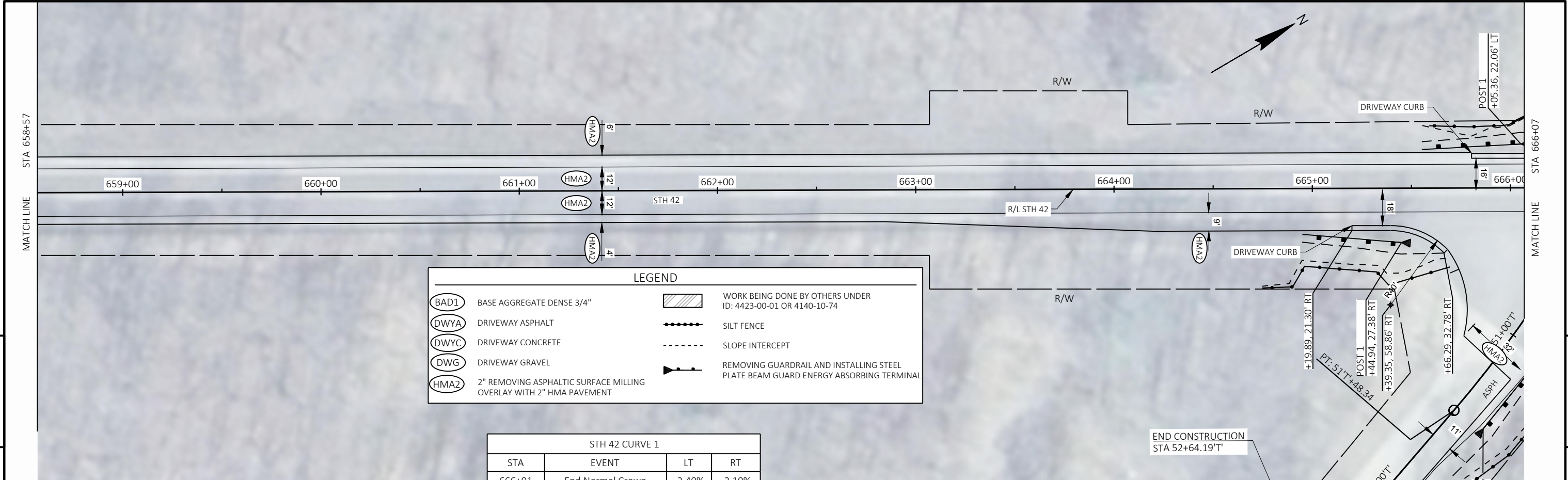


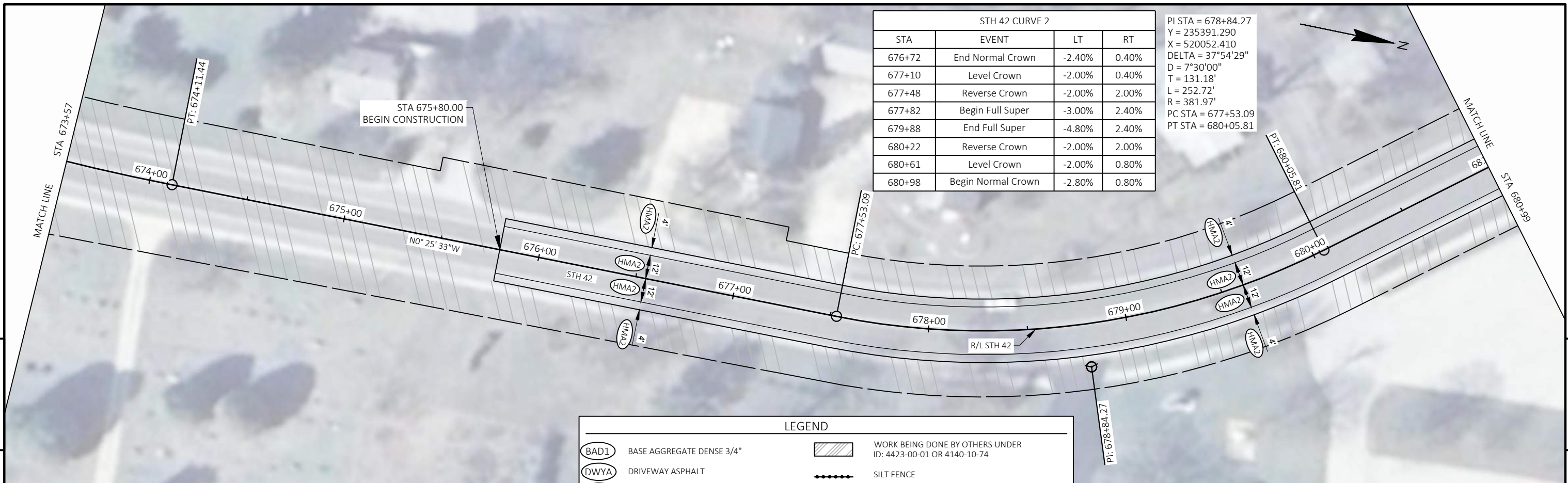
BEGIN PROJECT
 STA 644+24.00
 MATCH EXISTING
 2' BUTT JOINT REQ'D
 Y = 232281.777
 X = 518695.442

LEGEND			
(BAD1)	BASE AGGREGATE DENSE 3/4"		WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
(DWYA)	DRIVEWAY ASPHALT		SILT FENCE
(DWYC)	DRIVEWAY CONCRETE		SLOPE INTERCEPT
(DWG)	DRIVEWAY GRAVEL		REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
(HMA2)	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT		

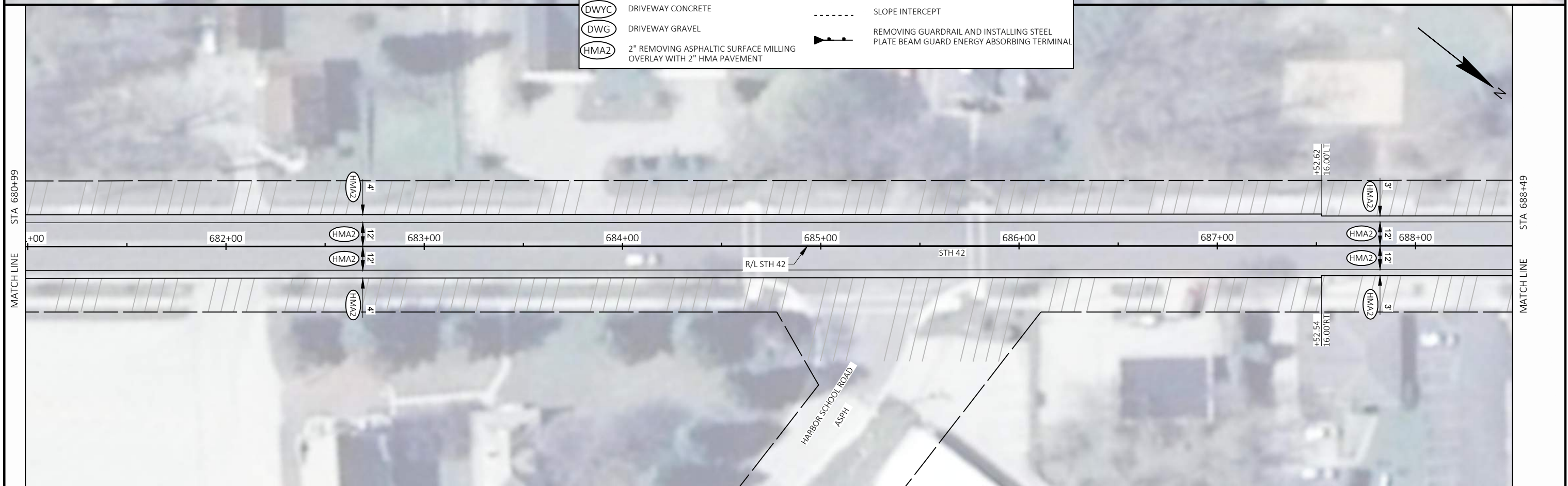


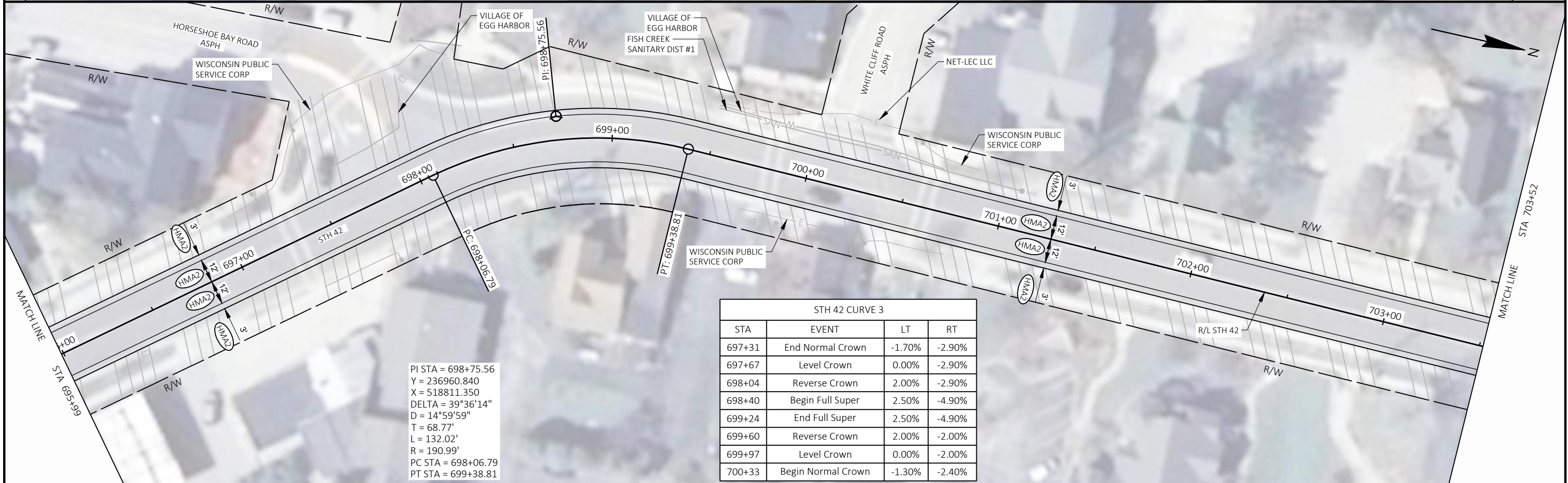
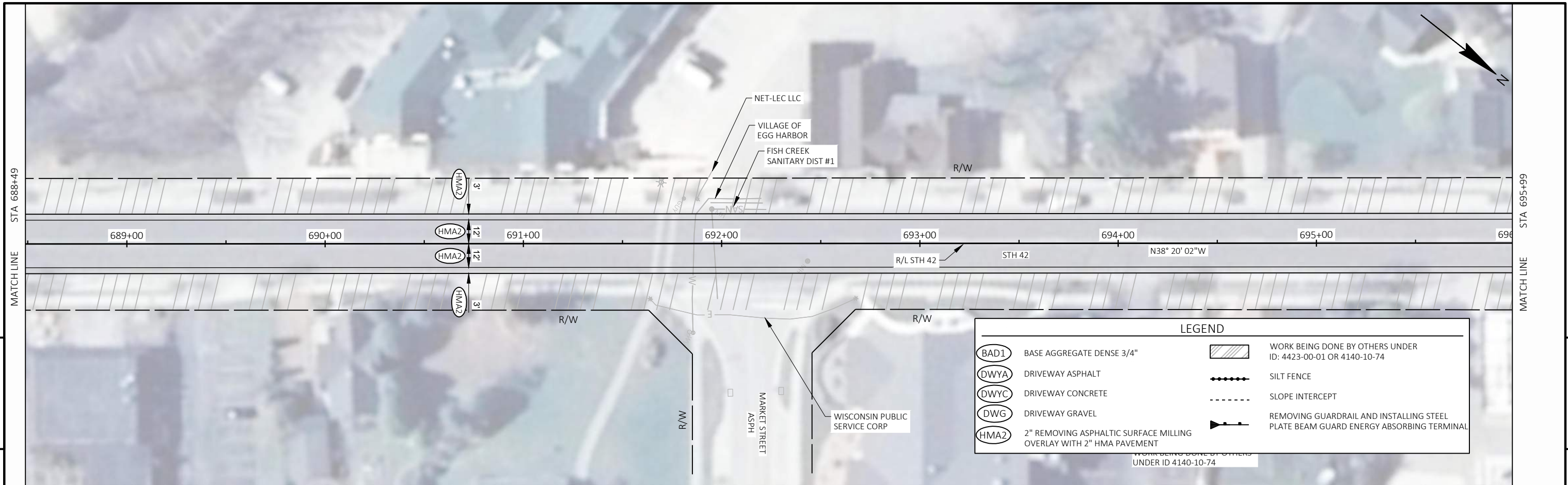
PROJECT NO: 4140-34-60	HWY: STH 42	COUNTY: DOOR	PLAN DETAILS	SHEET	E
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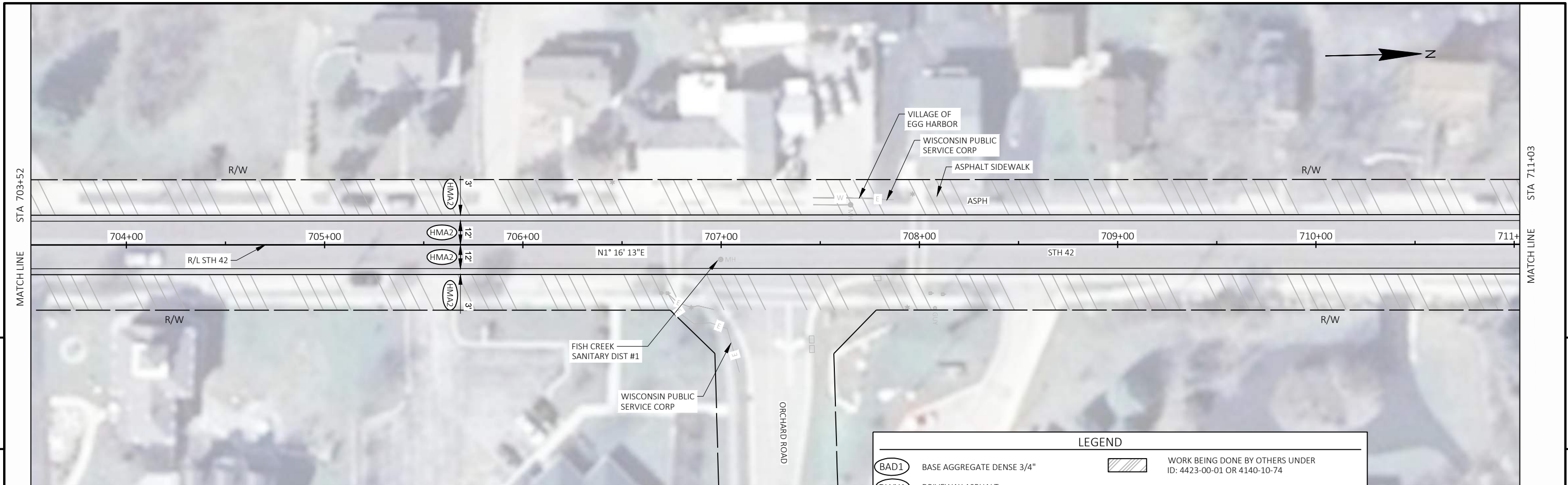




LEGEND	
	BASE AGGREGATE DENSE 3/4"
	DRIVEWAY ASPHALT
	DRIVEWAY CONCRETE
	DRIVEWAY GRAVEL
	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT
	WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
	SILT FENCE
	SLOPE INTERCEPT
	REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL



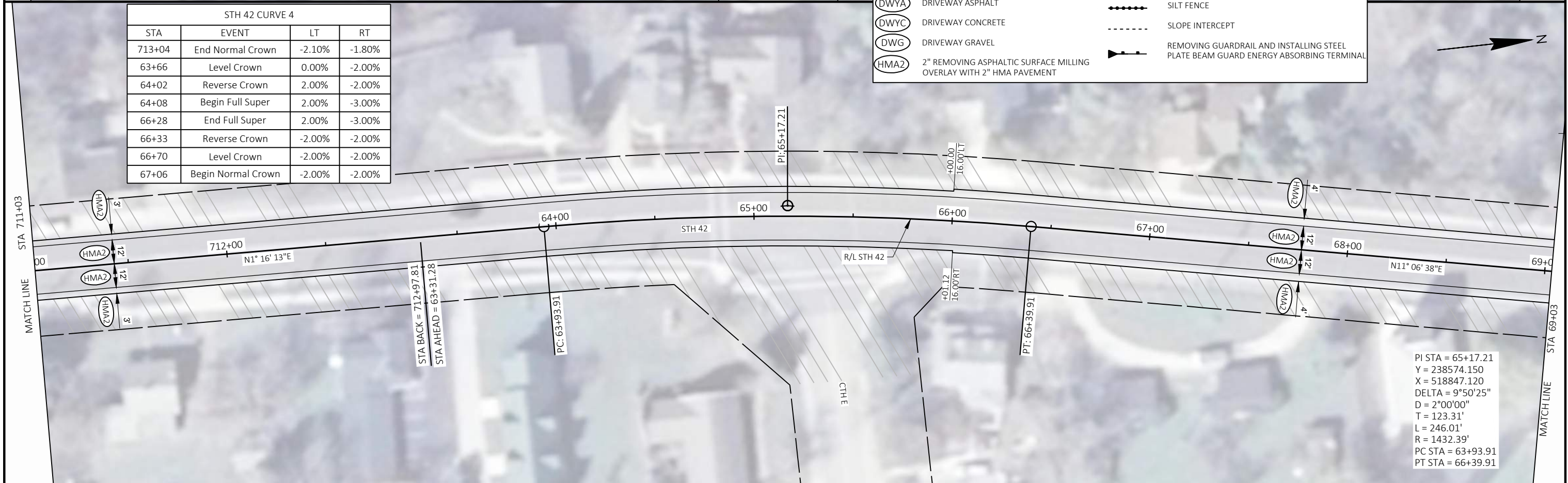




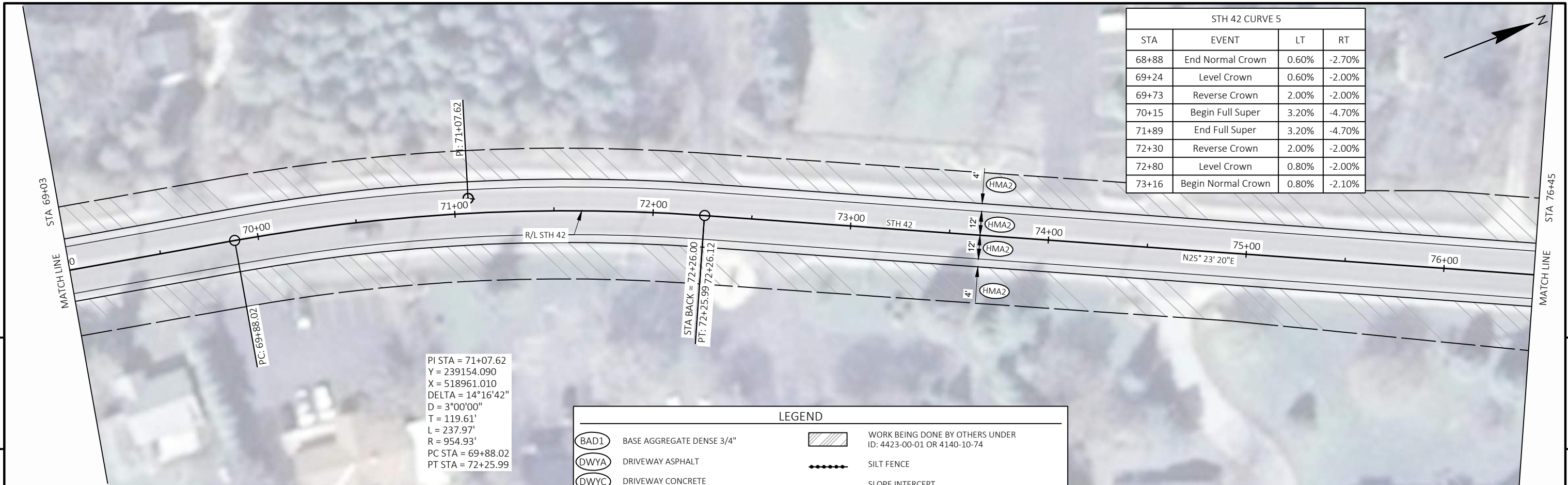
STH 42 CURVE 4			
STA	EVENT	LT	RT
713+04	End Normal Crown	-2.10%	-1.80%
63+66	Level Crown	0.00%	-2.00%
64+02	Reverse Crown	2.00%	-2.00%
64+08	Begin Full Super	2.00%	-3.00%
66+28	End Full Super	2.00%	-3.00%
66+33	Reverse Crown	-2.00%	-2.00%
66+70	Level Crown	-2.00%	-2.00%
67+06	Begin Normal Crown	-2.00%	-2.00%

LEGEND

- BAD1 BASE AGGREGATE DENSE 3/4"
- DWYA DRIVEWAY ASPHALT
- DWYC DRIVEWAY CONCRETE
- DWG DRIVEWAY GRAVEL
- HMA2 2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT
- WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
- SILT FENCE
- SLOPE INTERCEPT
- REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL



PI STA = 65+17.21
 Y = 238574.150
 X = 518847.120
 DELTA = 9°50'25"
 D = 2°00'00"
 T = 123.31'
 L = 246.01'
 R = 1432.39'
 PC STA = 63+93.91
 PT STA = 66+39.91

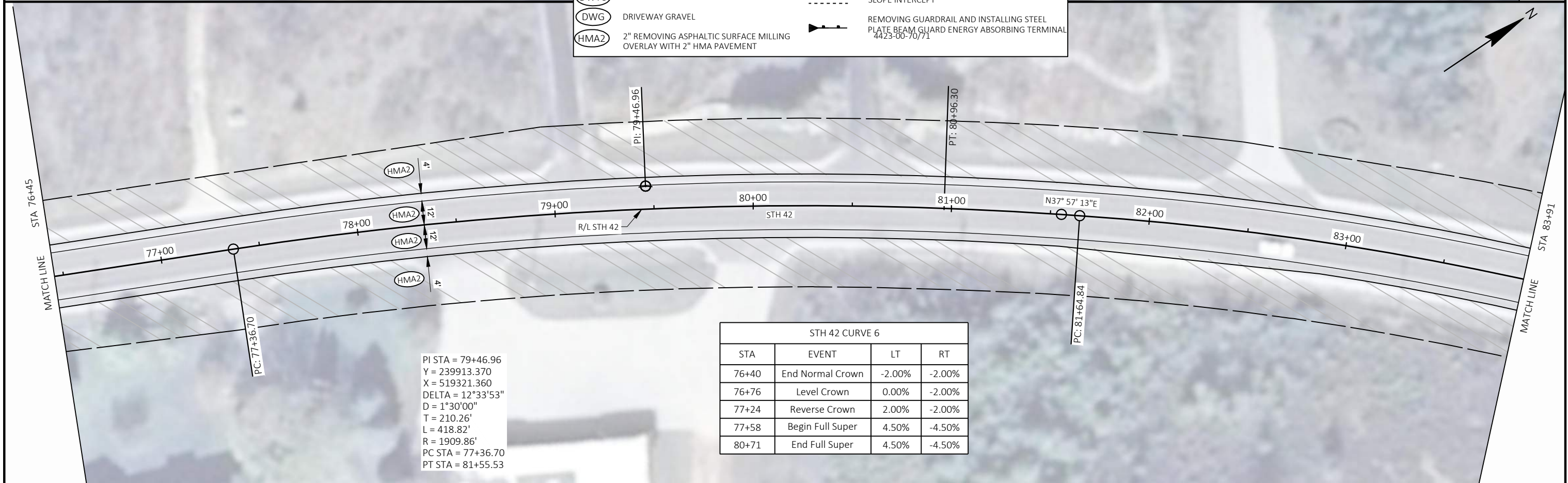


STH 42 CURVE 5			
STA	EVENT	LT	RT
68+88	End Normal Crown	0.60%	-2.70%
69+24	Level Crown	0.60%	-2.00%
69+73	Reverse Crown	2.00%	-2.00%
70+15	Begin Full Super	3.20%	-4.70%
71+89	End Full Super	3.20%	-4.70%
72+30	Reverse Crown	2.00%	-2.00%
72+80	Level Crown	0.80%	-2.00%
73+16	Begin Normal Crown	0.80%	-2.10%

PI STA = 71+07.62
 Y = 239154.090
 X = 518961.010
 DELTA = 14°16'42"
 D = 3°00'00"
 T = 119.61'
 L = 237.97'
 R = 954.93'
 PC STA = 69+88.02
 PT STA = 72+25.99

LEGEND

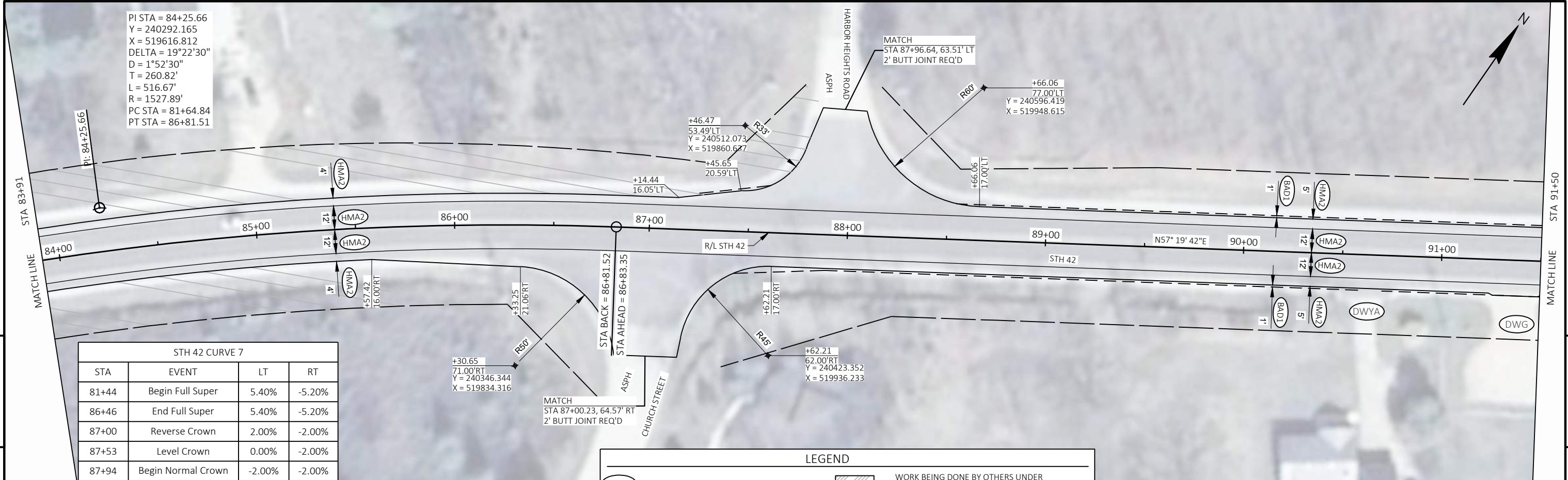
BAD1	BASE AGGREGATE DENSE 3/4"		WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
DWYA	DRIVEWAY ASPHALT		SILT FENCE
DWYC	DRIVEWAY CONCRETE		SLOPE INTERCEPT
DWG	DRIVEWAY GRAVEL		REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL 4423-00-70/71
HMA2	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT		



STH 42 CURVE 6			
STA	EVENT	LT	RT
76+40	End Normal Crown	-2.00%	-2.00%
76+76	Level Crown	0.00%	-2.00%
77+24	Reverse Crown	2.00%	-2.00%
77+58	Begin Full Super	4.50%	-4.50%
80+71	End Full Super	4.50%	-4.50%

PI STA = 79+46.96
 Y = 239913.370
 X = 519321.360
 DELTA = 12°33'53"
 D = 1°30'00"
 T = 210.26'
 L = 418.82'
 R = 1909.86'
 PC STA = 77+36.70
 PT STA = 81+55.53

PI STA = 84+25.66
 Y = 240292.165
 X = 519616.812
 DELTA = 19°22'30"
 D = 1°52'30"
 T = 260.82'
 L = 516.67'
 R = 1527.89'
 PC STA = 81+64.84
 PT STA = 86+81.51

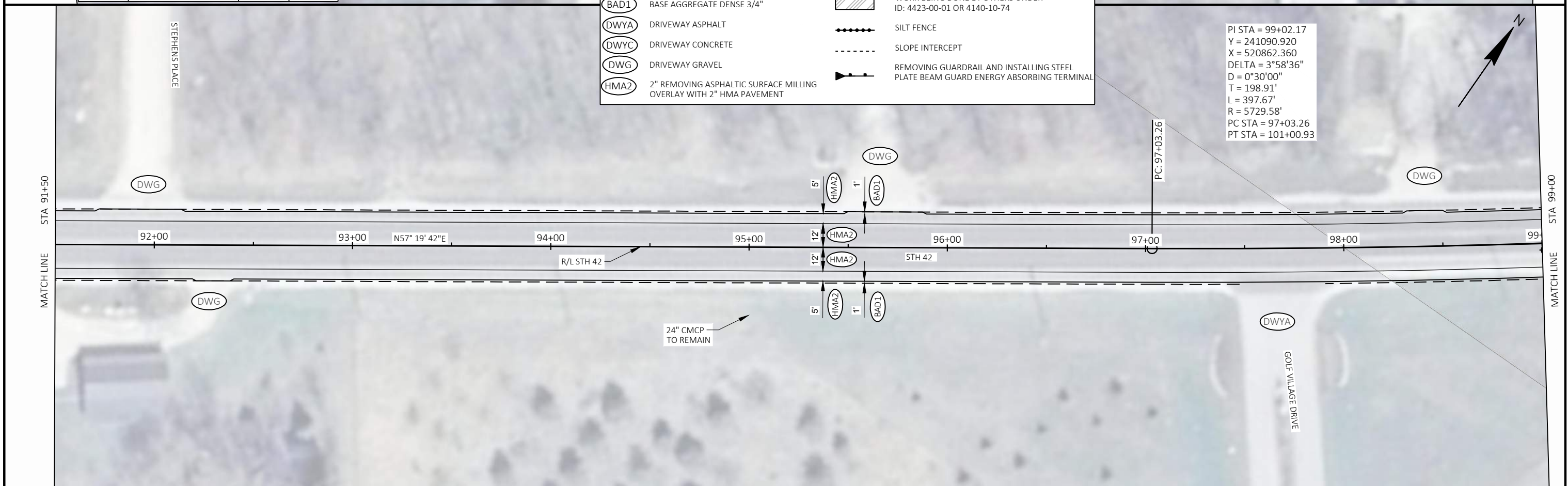


STH 42 CURVE 7			
STA	EVENT	LT	RT
81+44	Begin Full Super	5.40%	-5.20%
86+46	End Full Super	5.40%	-5.20%
87+00	Reverse Crown	2.00%	-2.00%
87+53	Level Crown	0.00%	-2.00%
87+94	Begin Normal Crown	-2.00%	-2.00%

LEGEND

BAD1	BASE AGGREGATE DENSE 3/4"		WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
DWYA	DRIVEWAY ASPHALT		SILT FENCE
DWYC	DRIVEWAY CONCRETE		SLOPE INTERCEPT
DWG	DRIVEWAY GRAVEL		REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
HMA2	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT		

PI STA = 99+02.17
 Y = 241090.920
 X = 520862.360
 DELTA = 3°58'36"
 D = 0°30'00"
 T = 198.91'
 L = 397.67'
 R = 5729.58'
 PC STA = 97+03.26
 PT STA = 101+00.93







STH 42 CURVE 8			
STA	EVENT	LT	RT
96+18	End Normal Crown	-2.20%	-1.00%
96+69	Level Crown	-2.00%	0.00%
97+26	Reverse Crown	-2.00%	2.00%
97+38	Begin Full Super	-3.80%	2.20%
101+01	End Full Super	-3.40%	2.20%
101+13	Reverse Crown	-2.00%	2.00%
101+70	Level Crown	-1.60%	0.00%
102+21	Begin Normal Crown	-1.60%	-1.00%

PI STA = 99+02.17
 Y = 241090.920
 X = 520862.360
 DELTA = 3°58'36"
 D = 0°30'00"
 T = 198.91'
 L = 397.67'
 R = 5729.58'
 PC STA = 97+03.26
 PT STA = 101+00.93

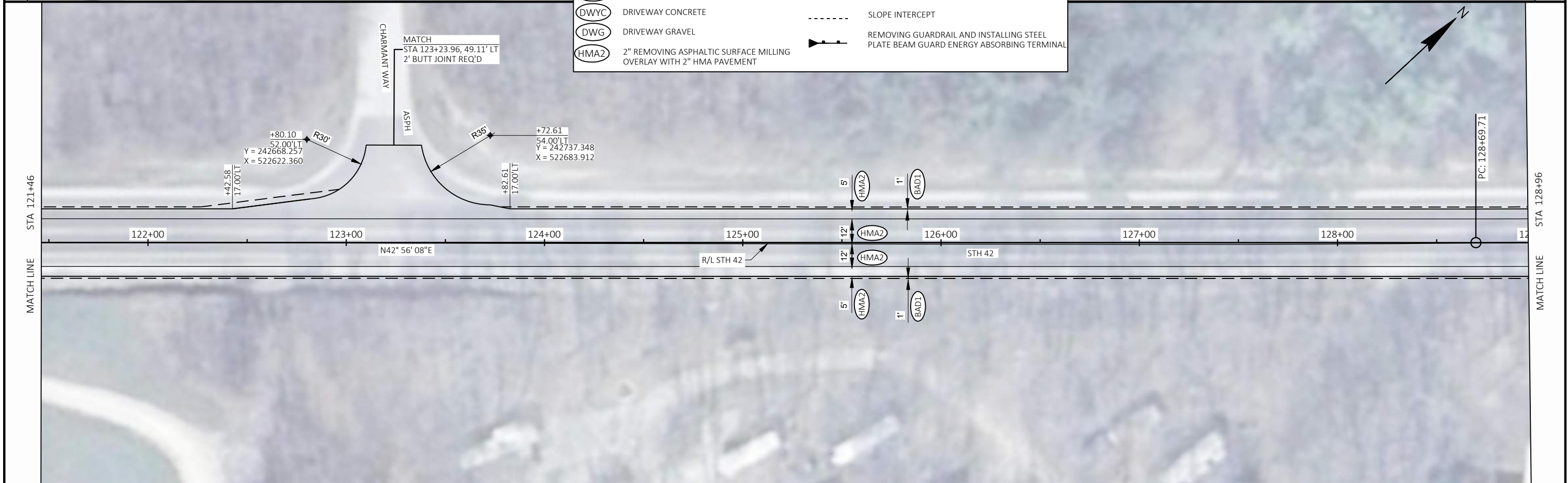
STA BACK = 101+00.94
 STA AHEAD = 101+01.33

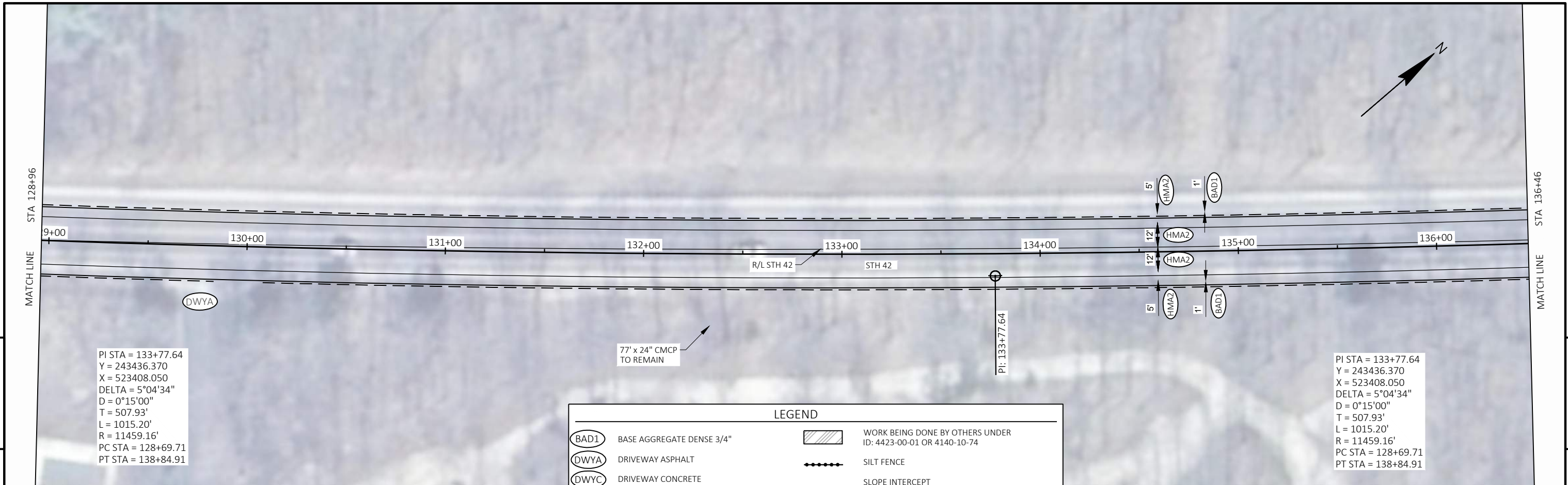
PT: 101+24.61

LEGEND		
(BAD1)	BASE AGGREGATE DENSE 3/4"	 WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
(DWYA)	DRIVEWAY ASPHALT	 SILT FENCE
(DWYC)	DRIVEWAY CONCRETE	 SLOPE INTERCEPT
(DWG)	DRIVEWAY GRAVEL	 REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
(HMA2)	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT	

STH 42 CURVE 9			
STA	EVENT	LT	RT
107+68	End Normal Crown	-1.50%	-1.00%
108+18	Level Crown	-2.00%	0.00%
108+76	Reverse Crown	-2.00%	2.00%
108+88	Begin Full Super	-2.80%	3.50%
118+61	End Full Super	-2.80%	3.50%
118+73	Reverse Crown	-2.00%	2.00%
119+37	Level Crown	-1.70%	0.00%
119+88	Begin Normal Crown	-1.70%	-1.00%

PI STA = 113+74.16
 Y = 241969.410
 X = 522043.170
 DELTA = 10°24'58"
 D = 0°30'00"
 T = 522.25'
 L = 1041.62'
 R = 5729.58'
 PC STA = 108+51.91
 PT STA = 118+96.18

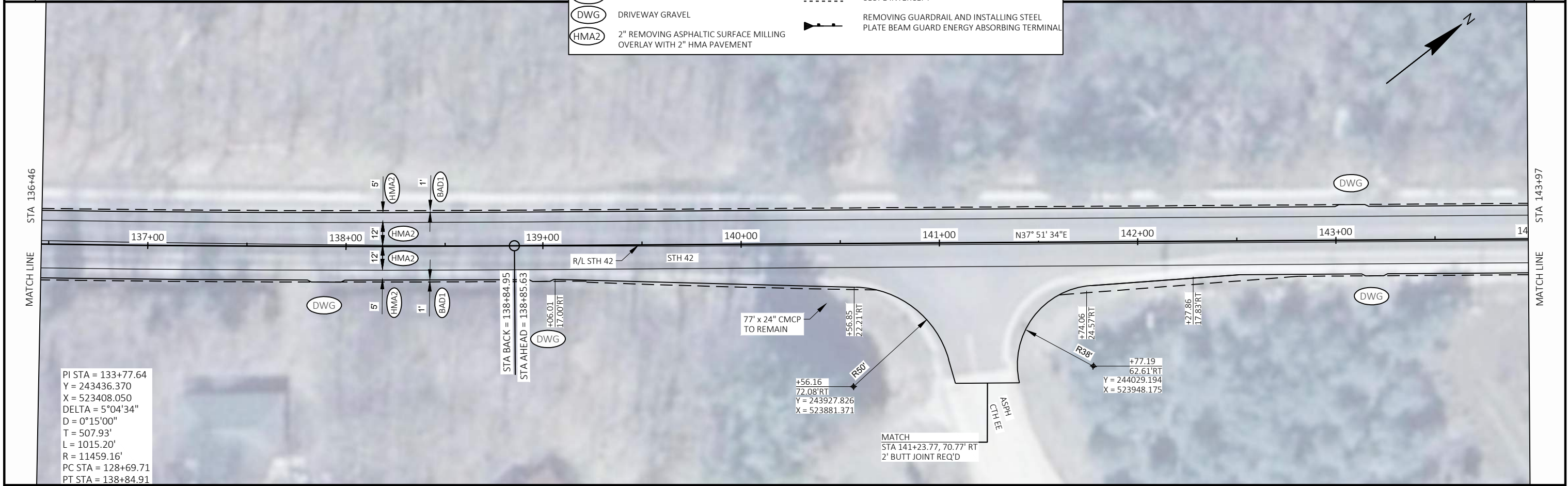




PI STA = 133+77.64
 Y = 243436.370
 X = 523408.050
 DELTA = 5°04'34"
 D = 0°15'00"
 T = 507.93'
 L = 1015.20'
 R = 11459.16'
 PC STA = 128+69.71
 PT STA = 138+84.91

PI STA = 133+77.64
 Y = 243436.370
 X = 523408.050
 DELTA = 5°04'34"
 D = 0°15'00"
 T = 507.93'
 L = 1015.20'
 R = 11459.16'
 PC STA = 128+69.71
 PT STA = 138+84.91

LEGEND	
(BAD1)	BASE AGGREGATE DENSE 3/4"
(DWYA)	DRIVEWAY ASPHALT
(DWYC)	DRIVEWAY CONCRETE
(DWG)	DRIVEWAY GRAVEL
(HMA2)	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT
	WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
	SILT FENCE
	SLOPE INTERCEPT
	REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARDRAIL ENERGY ABSORBING TERMINAL

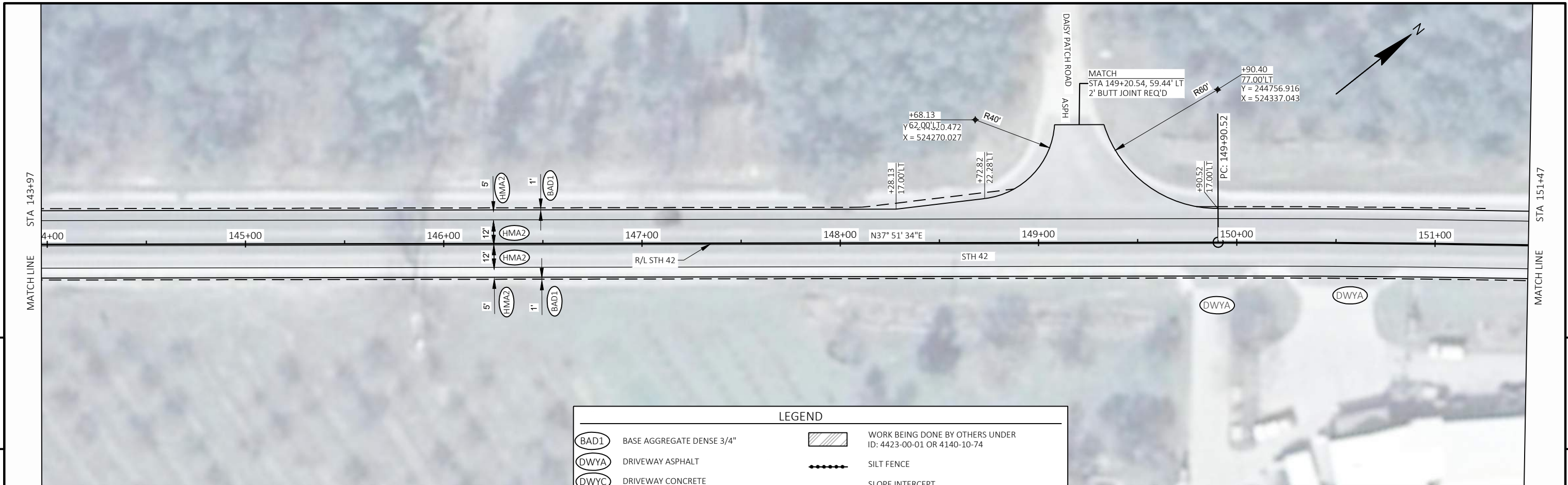


PI STA = 133+77.64
 Y = 243436.370
 X = 523408.050
 DELTA = 5°04'34"
 D = 0°15'00"
 T = 507.93'
 L = 1015.20'
 R = 11459.16'
 PC STA = 128+69.71
 PT STA = 138+84.91

+56.16
 72.08'RT
 Y = 243927.826
 X = 523881.371

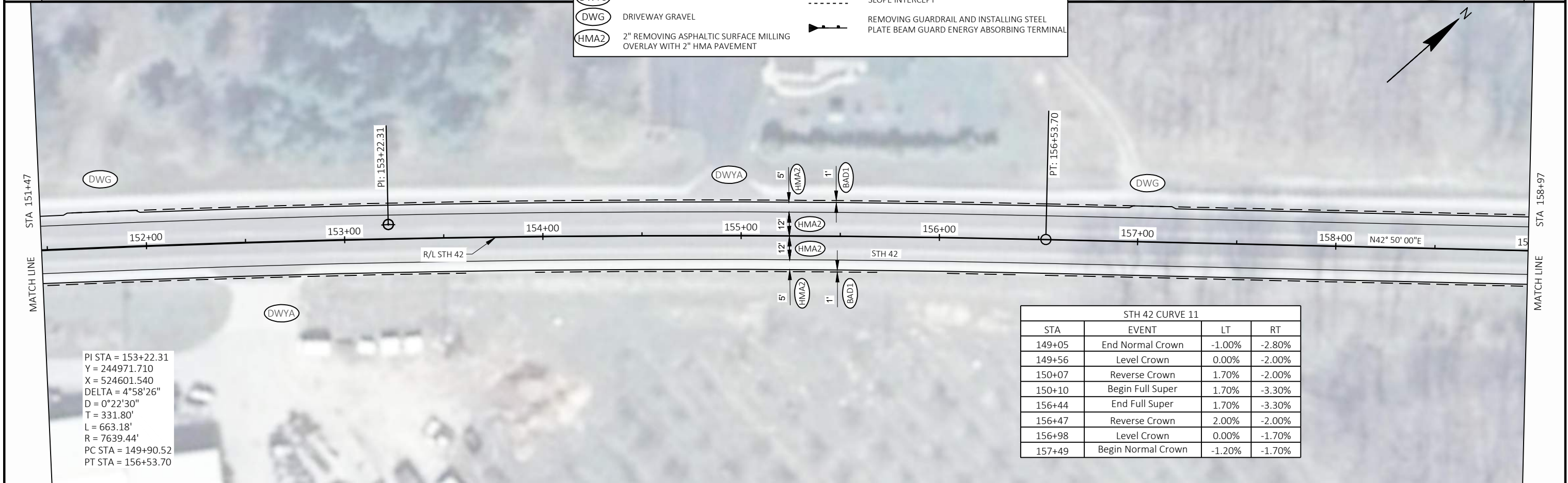
+77.19
 62.61'RT
 Y = 244029.194
 X = 523948.175

MATCH
 STA 141+23.77, 70.77' RT
 2' BUTT JOINT REQ'D



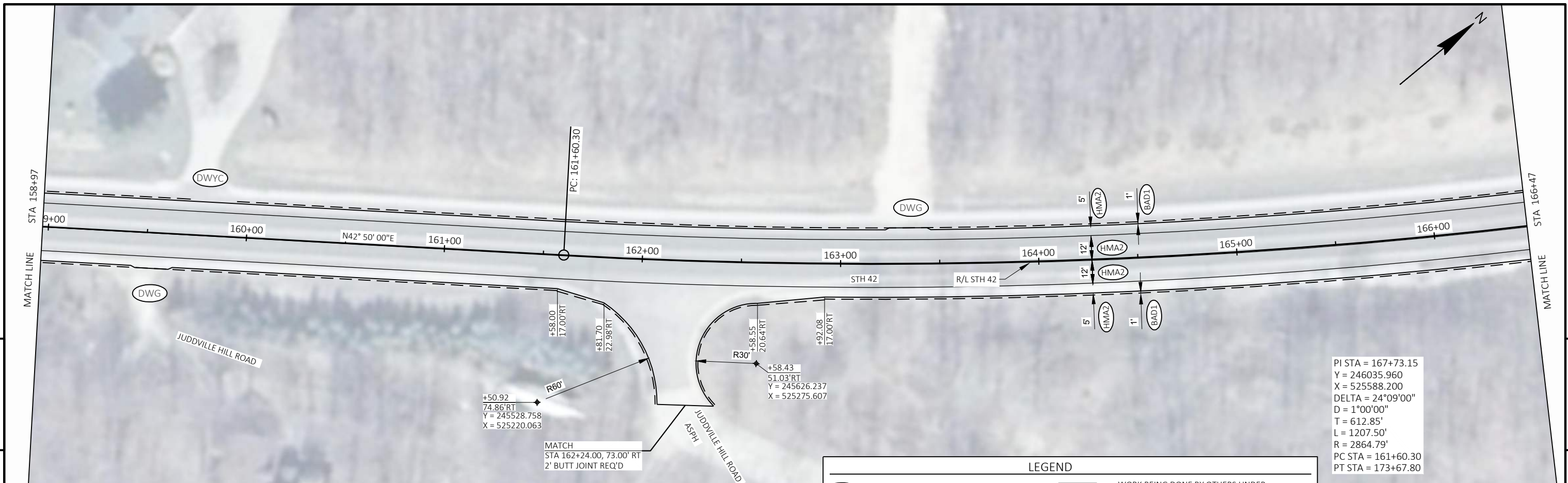
LEGEND

BAD1	BASE AGGREGATE DENSE 3/4"		WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
DWYA	DRIVEWAY ASPHALT		SILT FENCE
DWYC	DRIVEWAY CONCRETE		SLOPE INTERCEPT
DWG	DRIVEWAY GRAVEL		REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
HMA2	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT		



PI STA = 153+22.31
 Y = 244971.710
 X = 524601.540
 DELTA = 4°58'26"
 D = 0°22'30"
 T = 331.80'
 L = 663.18'
 R = 7639.44'
 PC STA = 149+90.52
 PT STA = 156+53.70

STH 42 CURVE 11			
STA	EVENT	LT	RT
149+05	End Normal Crown	-1.00%	-2.80%
149+56	Level Crown	0.00%	-2.00%
150+07	Reverse Crown	1.70%	-2.00%
150+10	Begin Full Super	1.70%	-3.30%
156+44	End Full Super	1.70%	-3.30%
156+47	Reverse Crown	2.00%	-2.00%
156+98	Level Crown	0.00%	-1.70%
157+49	Begin Normal Crown	-1.20%	-1.70%



PI STA = 167+73.15
 Y = 246035.960
 X = 525588.200
 DELTA = 24°09'00"
 D = 1°00'00"
 T = 612.85'
 L = 1207.50'
 R = 2864.79'
 PC STA = 161+60.30
 PT STA = 173+67.80

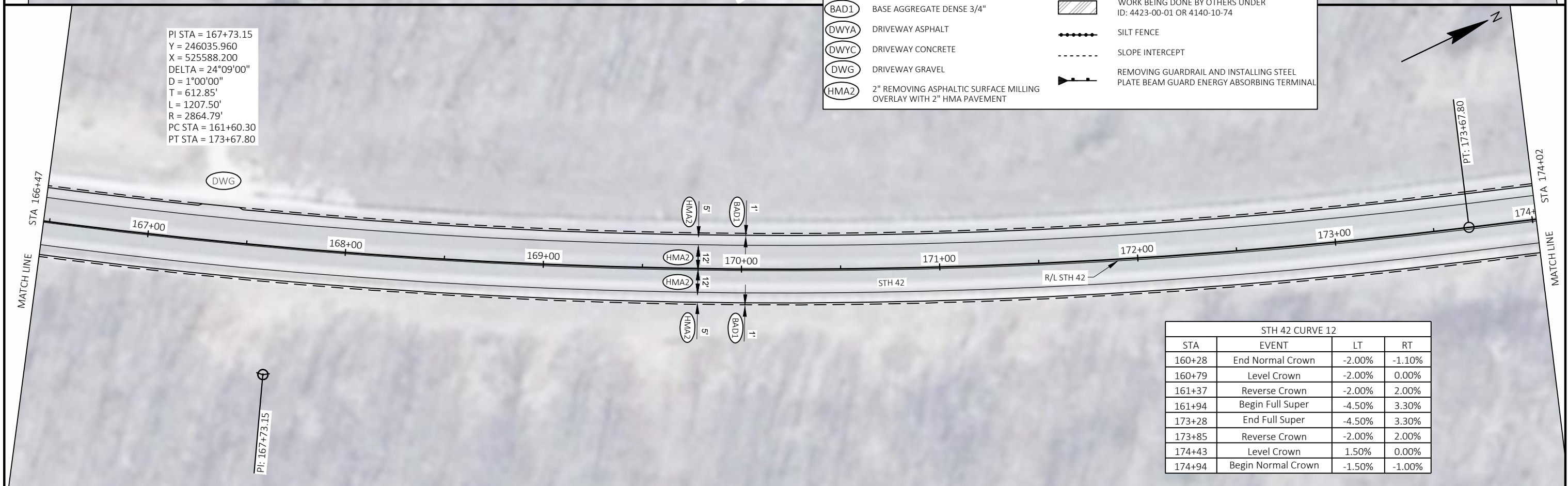
+50.92
 74.86'RT
 Y = 245528.758
 X = 525220.063

MATCH
 STA 162+24.00, 73.00' RT
 2' BUTT JOINT REQ'D

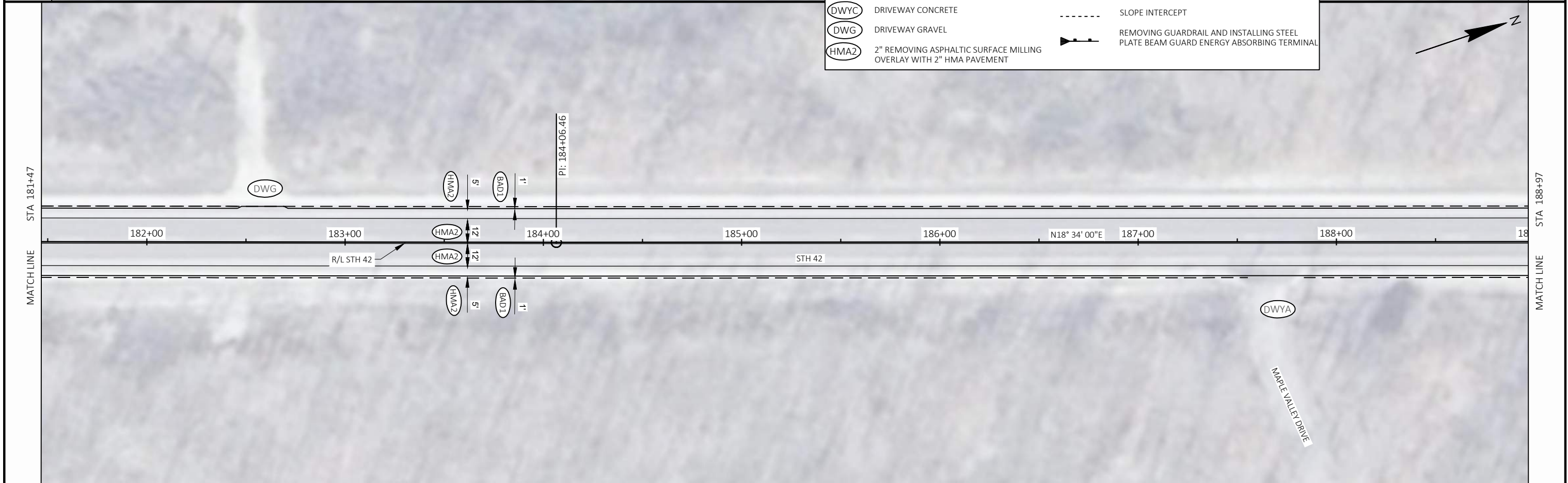
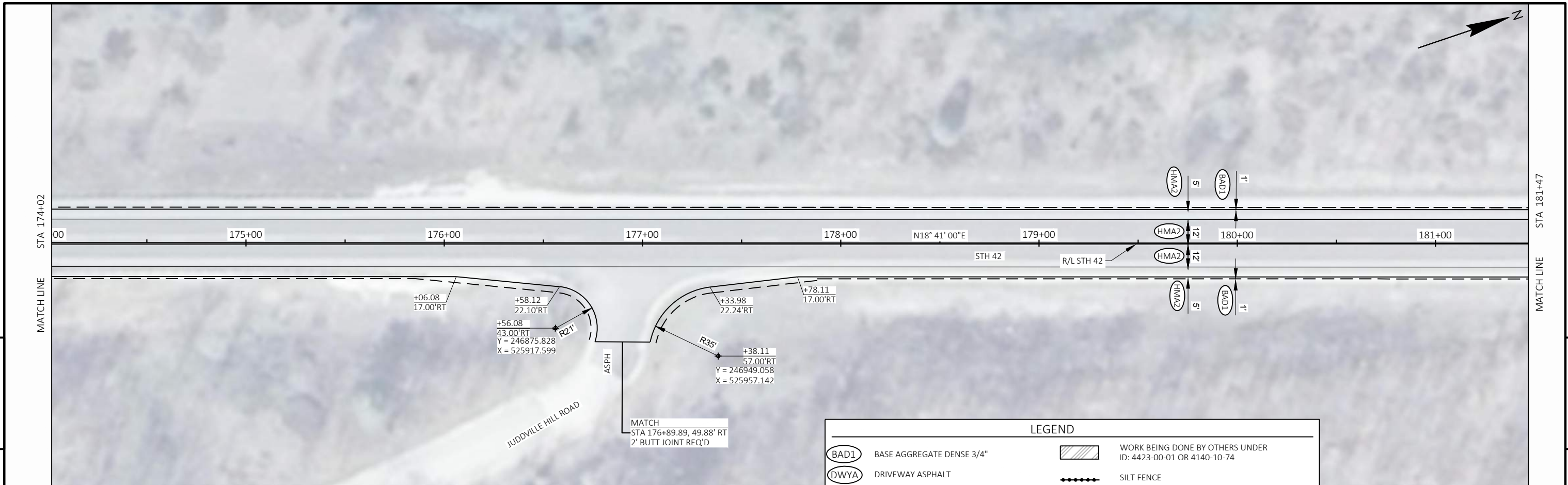
LEGEND

BAD1	BASE AGGREGATE DENSE 3/4"	WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
DWYA	DRIVEWAY ASPHALT	SILT FENCE
DWYC	DRIVEWAY CONCRETE	SLOPE INTERCEPT
DWG	DRIVEWAY GRAVEL	REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
HMA2	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT	

PI STA = 167+73.15
 Y = 246035.960
 X = 525588.200
 DELTA = 24°09'00"
 D = 1°00'00"
 T = 612.85'
 L = 1207.50'
 R = 2864.79'
 PC STA = 161+60.30
 PT STA = 173+67.80

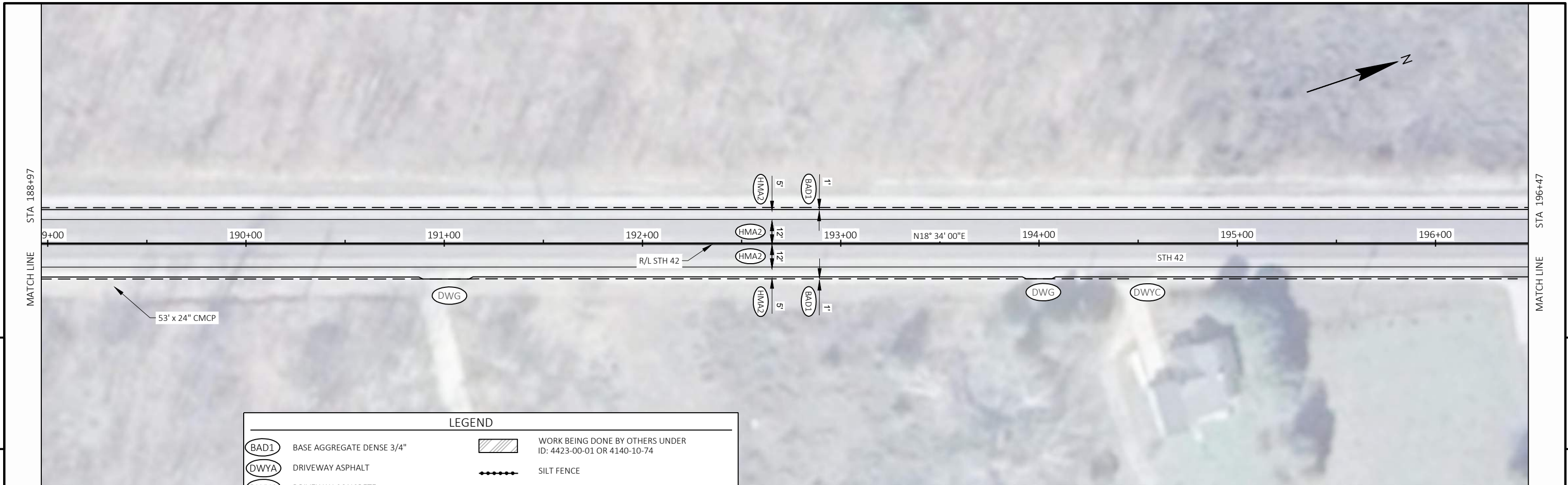


STH 42 CURVE 12			
STA	EVENT	LT	RT
160+28	End Normal Crown	-2.00%	-1.10%
160+79	Level Crown	-2.00%	0.00%
161+37	Reverse Crown	-2.00%	2.00%
161+94	Begin Full Super	-4.50%	3.30%
173+28	End Full Super	-4.50%	3.30%
173+85	Reverse Crown	-2.00%	2.00%
174+43	Level Crown	1.50%	0.00%
174+94	Begin Normal Crown	-1.50%	-1.00%

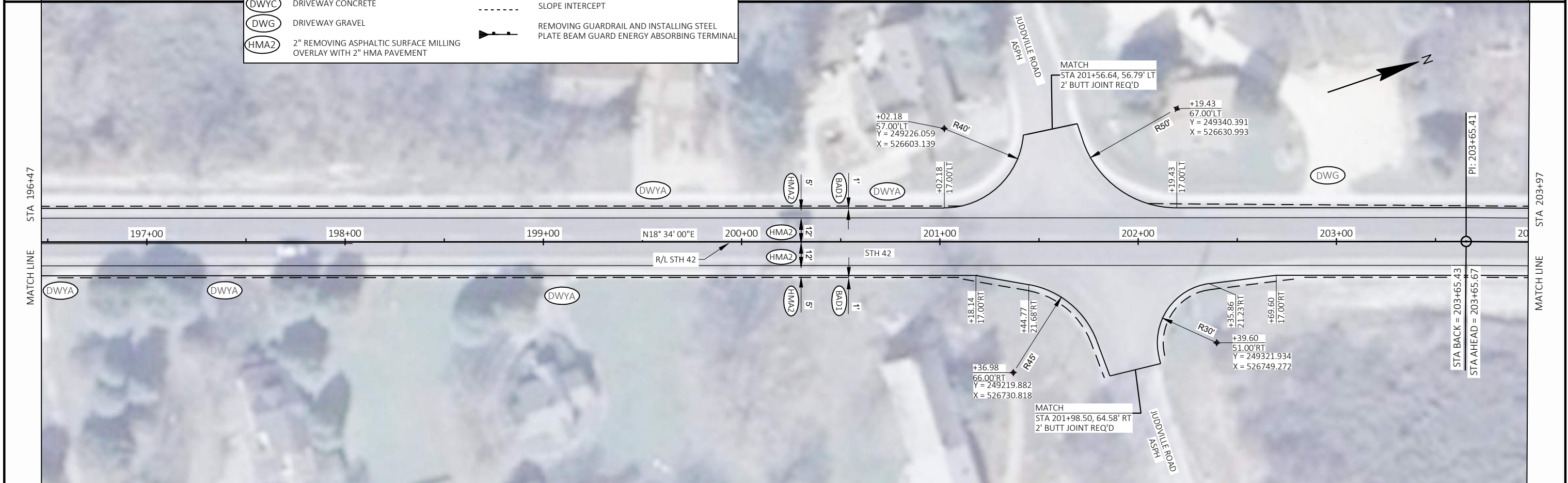


LEGEND		
	BAD1	BASE AGGREGATE DENSE 3/4"
	DWYA	DRIVEWAY ASPHALT
	DWYC	DRIVEWAY CONCRETE
	DWG	DRIVEWAY GRAVEL
	HMA2	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT
		WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
		SILT FENCE
		SLOPE INTERCEPT
		REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

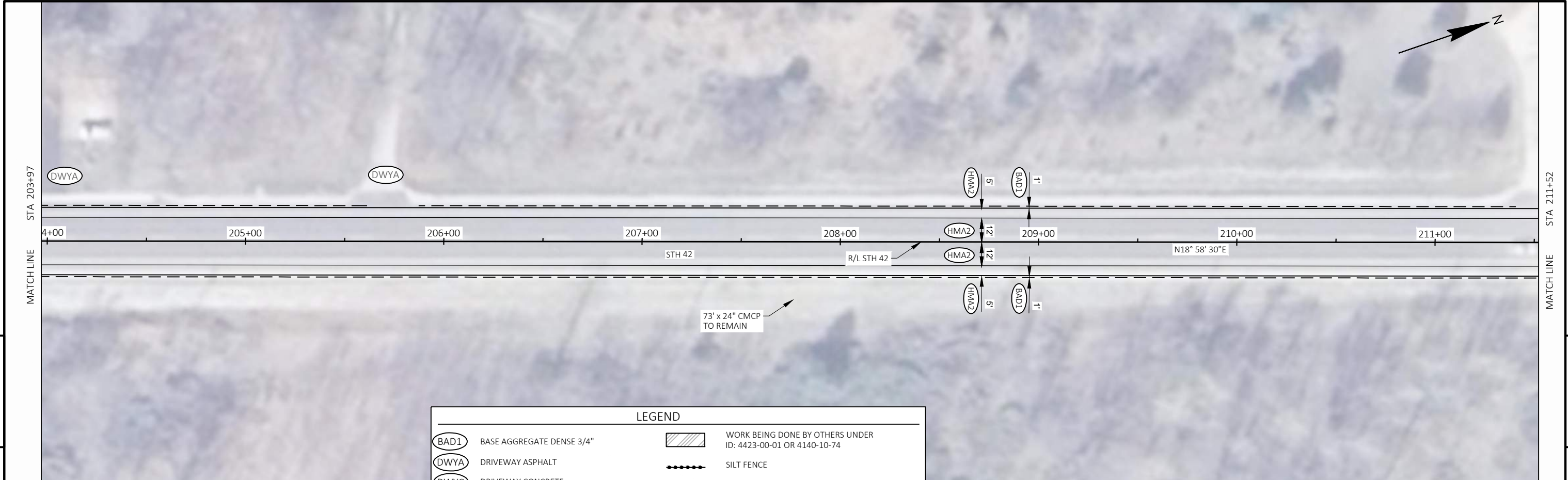
PROJECT NO: 4140-34-60 HWY: STH 42 COUNTY: DOOR PLAN DETAILS SHEET E



LEGEND	
BAD1	BASE AGGREGATE DENSE 3/4"
DWYA	DRIVEWAY ASPHALT
DWYC	DRIVEWAY CONCRETE
DWG	DRIVEWAY GRAVEL
HMA2	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT
	WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
	SILT FENCE
	SLOPE INTERCEPT
	REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL



PROJECT NO: 4140-34-60	HWY: STH 42	COUNTY: DOOR	PLAN DETAILS	SHEET	E
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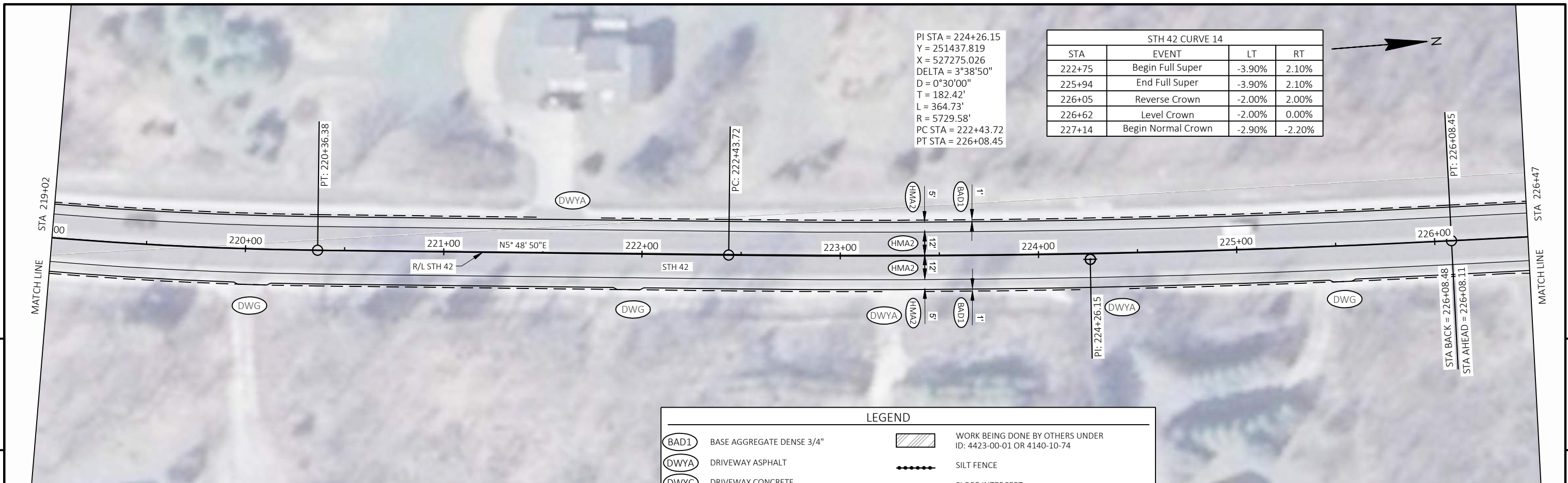
LEGEND	
(BAD1)	BASE AGGREGATE DENSE 3/4"
(DWYA)	DRIVEWAY ASPHALT
(DWYC)	DRIVEWAY CONCRETE
(DWG)	DRIVEWAY GRAVEL
(HMA2)	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT
	WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
	SILT FENCE
	SLOPE INTERCEPT
	REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL



PI STA = 218+18.00
 Y = 250830.867
 X = 527213.226
 DELTA = 13°09'40"
 D = 1°30'00"
 T = 220.32'
 L = 438.70'
 R = 1909.86'
 PC STA = 215+97.68
 PT STA = 220+36.38

STA 215+00 BEGIN ASPHALTIC CENTERLINE AND SHOULDER RUMBLE STRIP 2-LANE RURAL

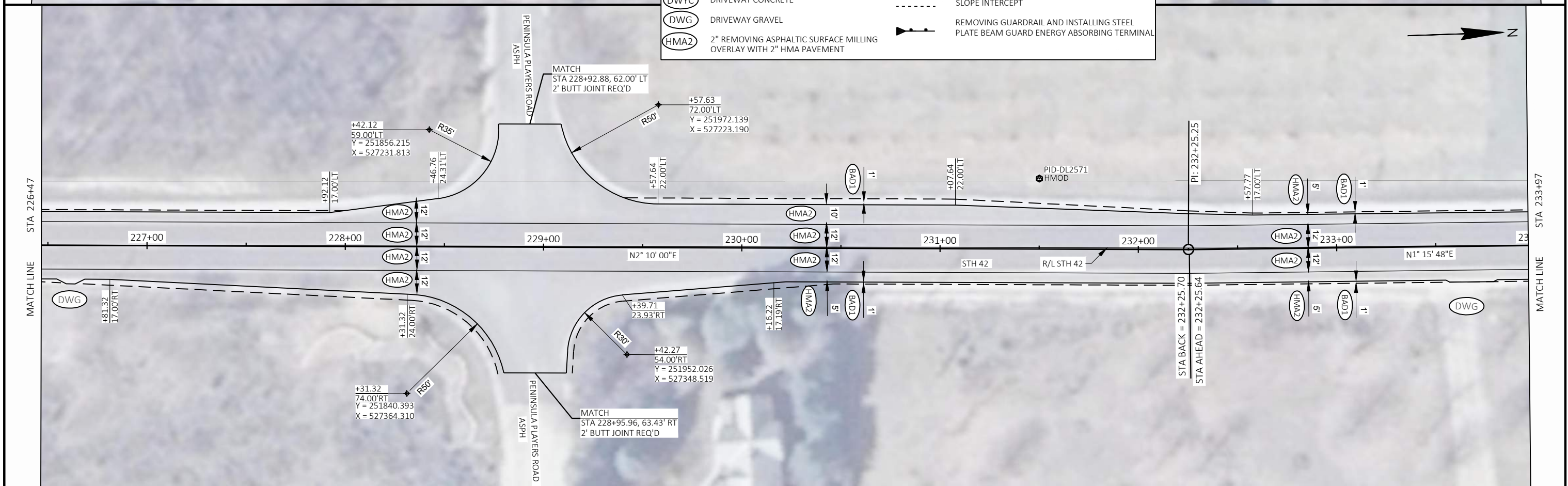
STH 42 CURVE 13			
STA	EVENT	LT	RT
214+51	End Normal Crown	-1.40%	-1.00%
215+02	Level Crown	-2.00%	0.00%
215+58	Reverse Crown	-2.00%	2.00%
216+42	Begin Full Super	-5.90%	6.30%
219+93	End Full Super	-5.90%	6.30%

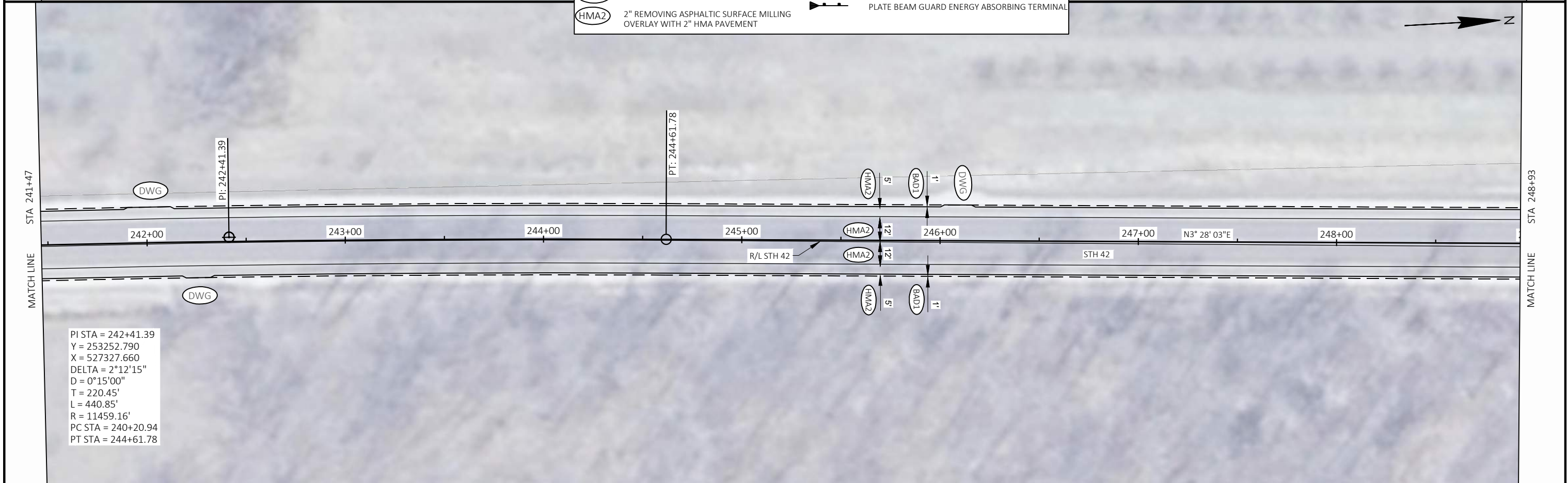
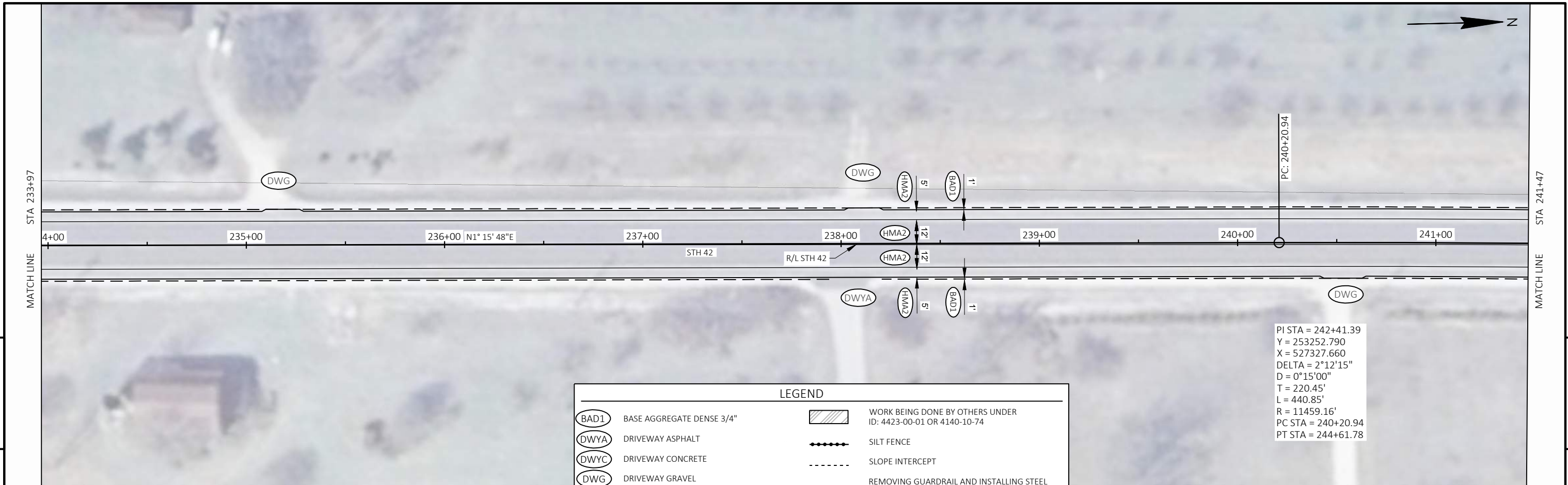


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LEGEND	
	BASE AGGREGATE DENSE 3/4"
	DRIVEWAY ASPHALT
	DRIVEWAY CONCRETE
	DRIVEWAY GRAVEL
	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT
	WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
	SILT FENCE
	SLOPE INTERCEPT
	REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL





PROJECT NO: 4140-34-60	HWY: STH 42	COUNTY: DOOR	PLAN DETAILS	SHEET	E
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STH 42 CURVE 16			
STA	EVENT	LT	RT
253+00	End Normal Crown	-1.00%	-3.00%
253+51	Level Crown	0.00%	-2.00%
254+09	Reverse Crown	2.00%	-2.00%
254+66	Begin Full Super	2.40%	-4.50%
255+86	End Full Super	2.40%	-4.50%
256+43	Reverse Crown	2.00%	-2.00%
257+01	Level Crown	0.00%	-2.00%
257+52	Begin Normal Crown	-1.00%	-1.90%

MATCH
STA 255+33.65, 70.79' LT
2' BUTT JOINT REQ'D

+83.17
57.00'LT
Y = 254497.224
X = 527346.961

R40'

PI: 255+14.23

+83.17
17.00'LT

ORCHARD ROAD
ASPH

+03.12
77.00'LT
Y = 254621.400
X = 527340.259

R60'










+03.12
17.00'LT

PC: 254+08.33

PT: 256+20.04

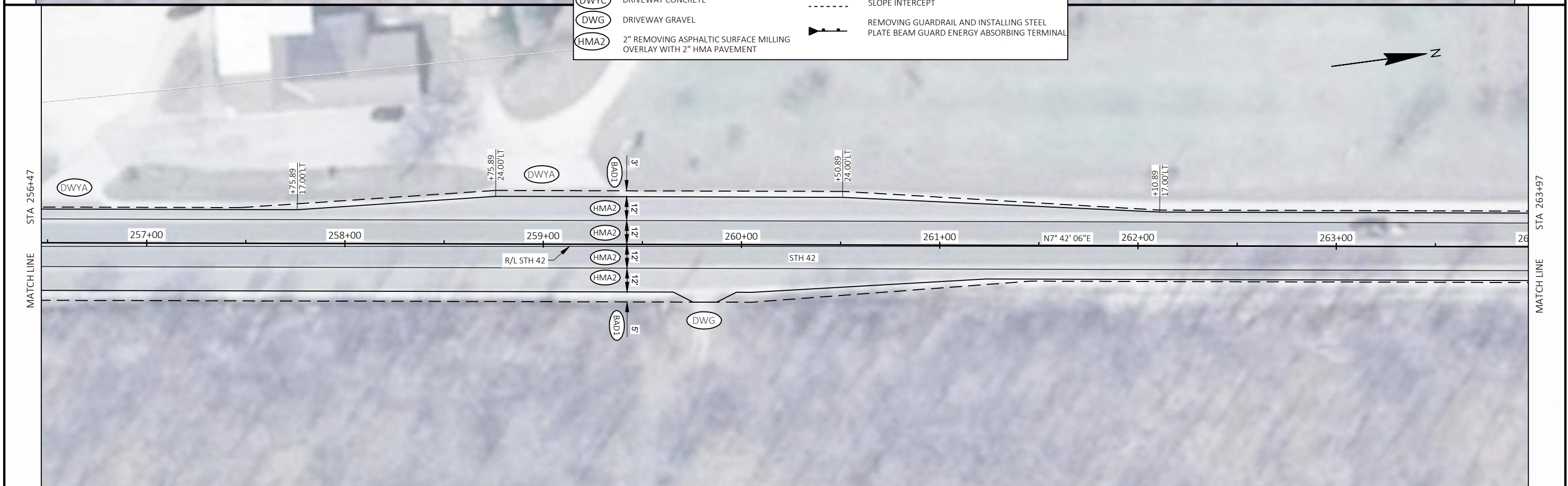
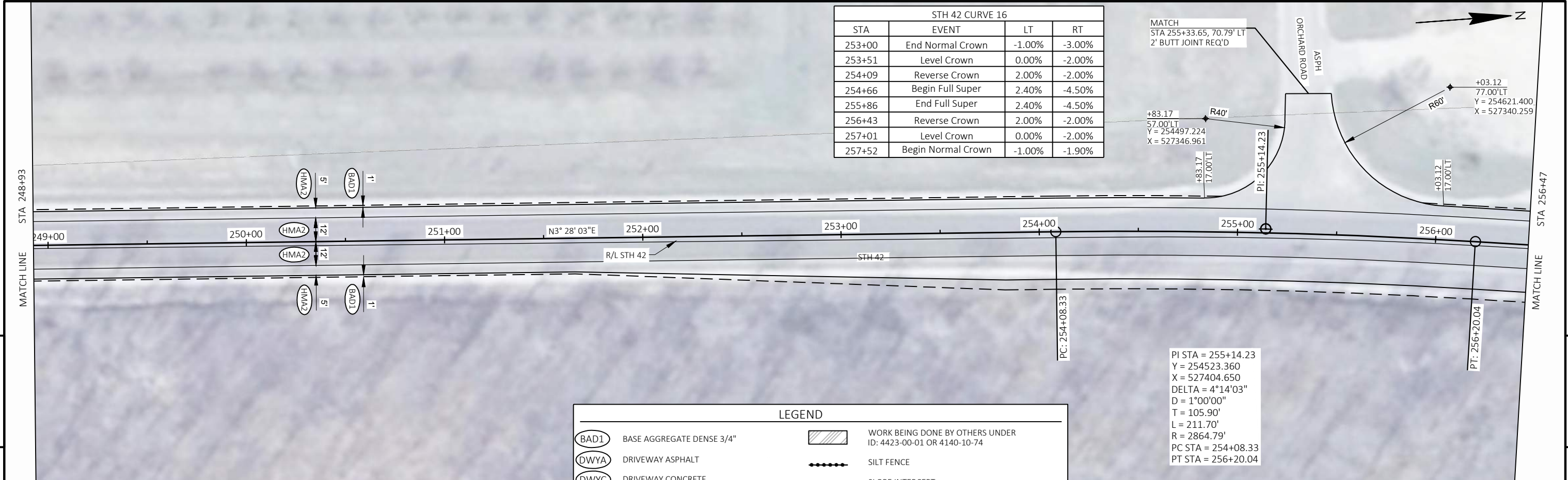
PI STA = 255+14.23
Y = 254523.360
X = 527404.650
DELTA = 4°14'03"
D = 1°00'00"
T = 105.90'
L = 211.70'
R = 2864.79'
PC STA = 254+08.33
PT STA = 256+20.04

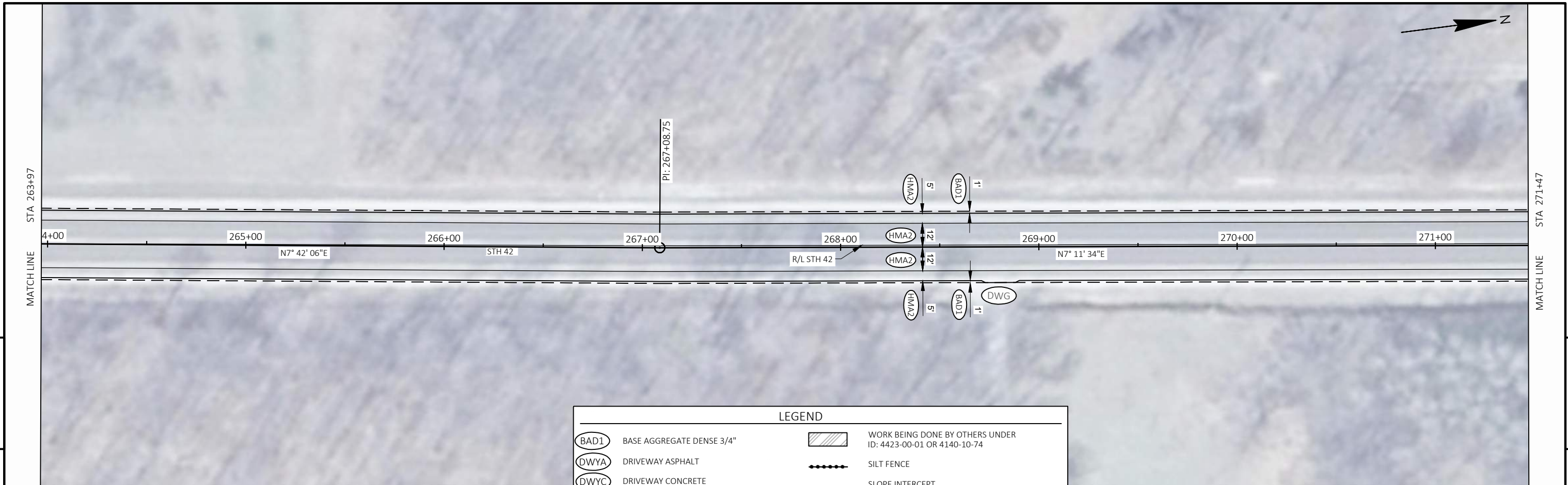
LEGEND

 BAD1	BASE AGGREGATE DENSE 3/4"		WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
 DWYA	DRIVEWAY ASPHALT		SILT FENCE
 DWYC	DRIVEWAY CONCRETE		SLOPE INTERCEPT
 DWG	DRIVEWAY GRAVEL		REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
 HMA2	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT		

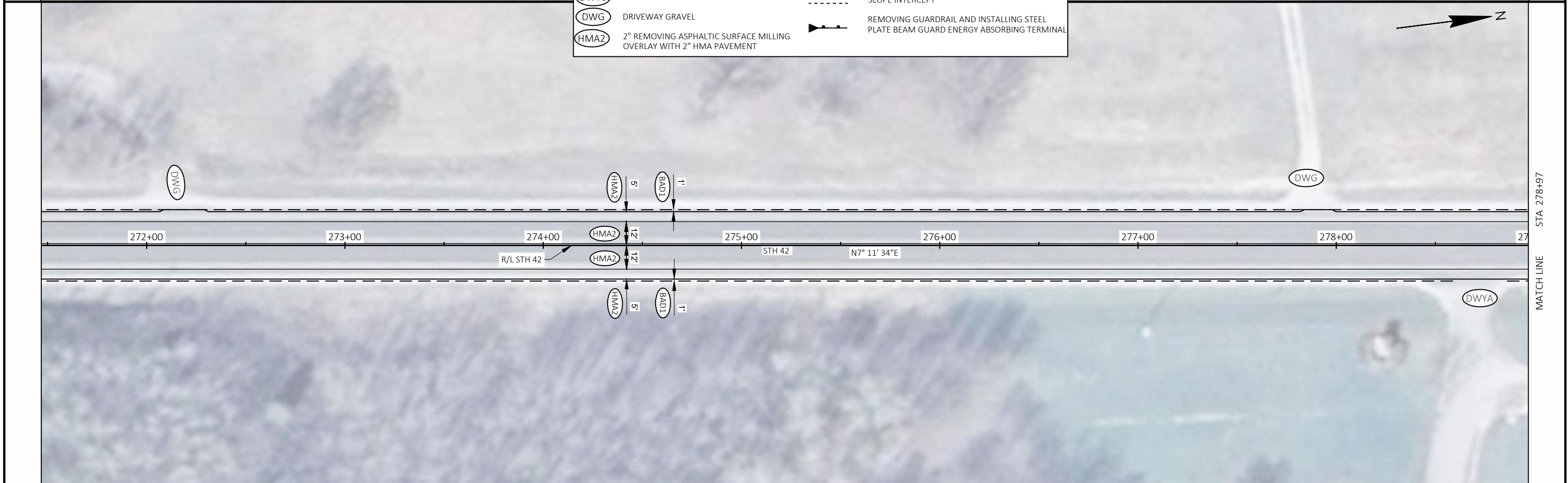
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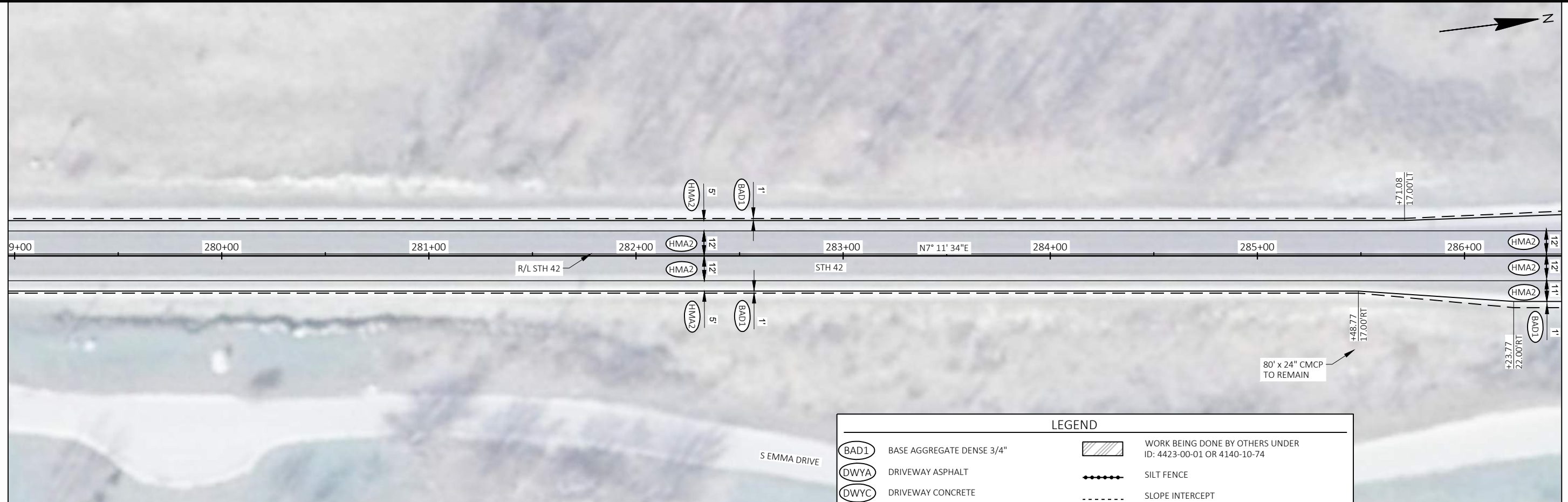
LEGEND	
BAD1	BASE AGGREGATE DENSE 3/4"
DWYA	DRIVEWAY ASPHALT
DWYC	DRIVEWAY CONCRETE
DWG	DRIVEWAY GRAVEL
HMA2	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT
	WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
	SILT FENCE
	SLOPE INTERCEPT
	REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL



PROJECT NO: 4140-34-60	HWY: STH 42	COUNTY: DOOR	PLAN DETAILS	SHEET	E
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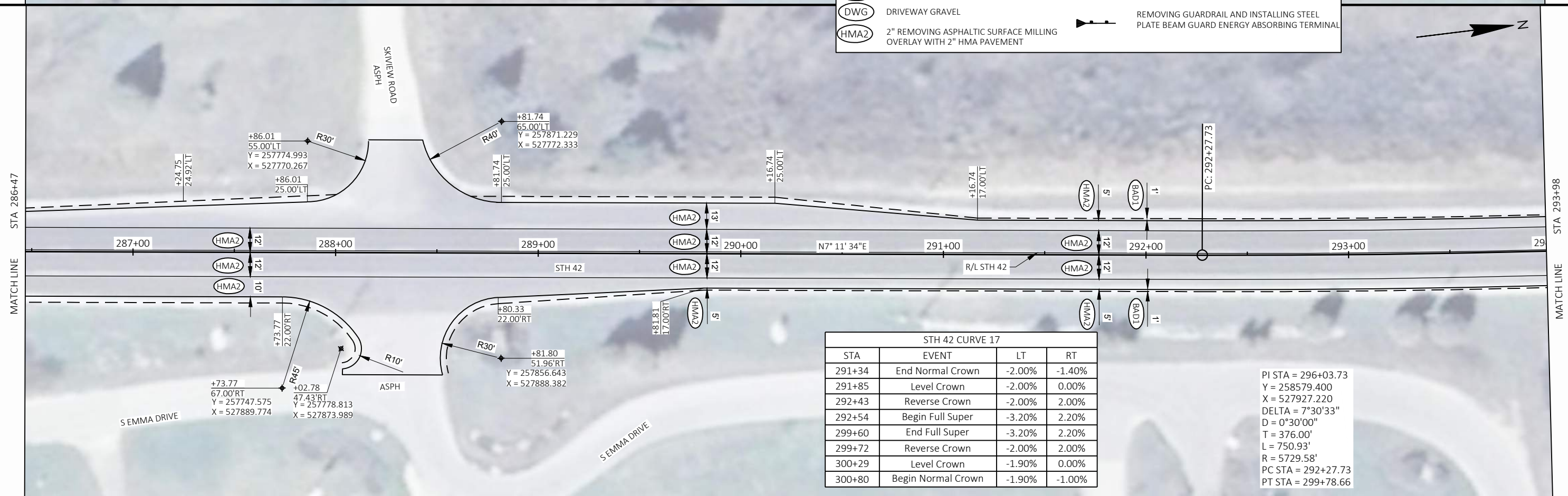
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LEGEND

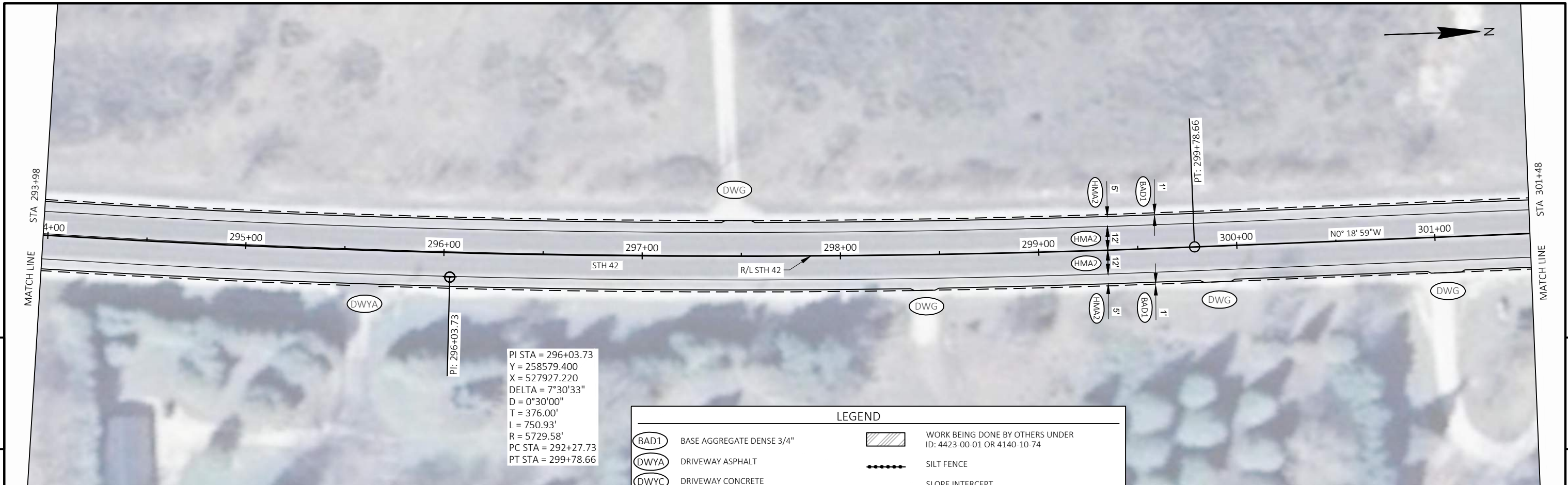
BAD1	BASE AGGREGATE DENSE 3/4"		WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
DWYA	DRIVEWAY ASPHALT		SILT FENCE
DWYC	DRIVEWAY CONCRETE		SLOPE INTERCEPT
DWG	DRIVEWAY GRAVEL		REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
HMA2	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT		



STH 42 CURVE 17

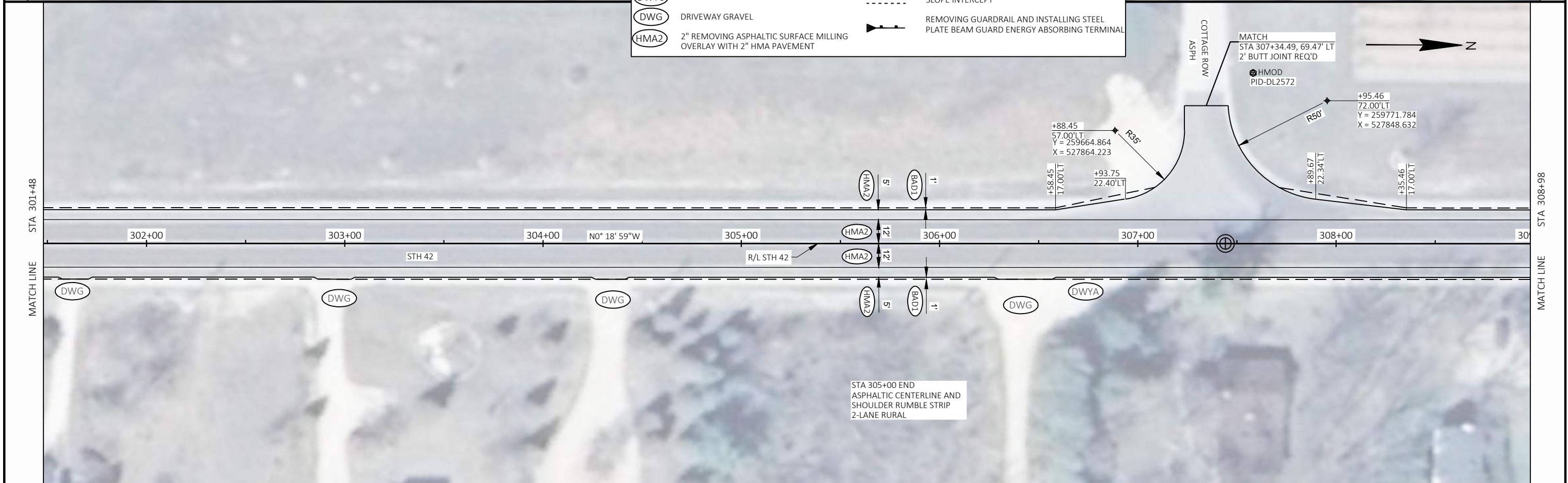
STA	EVENT	LT	RT
291+34	End Normal Crown	-2.00%	-1.40%
291+85	Level Crown	-2.00%	0.00%
292+43	Reverse Crown	-2.00%	2.00%
292+54	Begin Full Super	-3.20%	2.20%
299+60	End Full Super	-3.20%	2.20%
299+72	Reverse Crown	-2.00%	2.00%
300+29	Level Crown	-1.90%	0.00%
300+80	Begin Normal Crown	-1.90%	-1.00%

PI STA = 296+03.73
 Y = 258579.400
 X = 527927.220
 DELTA = 7°30'33"
 D = 0°30'00"
 T = 376.00'
 L = 750.93'
 R = 5729.58'
 PC STA = 292+27.73
 PT STA = 299+78.66



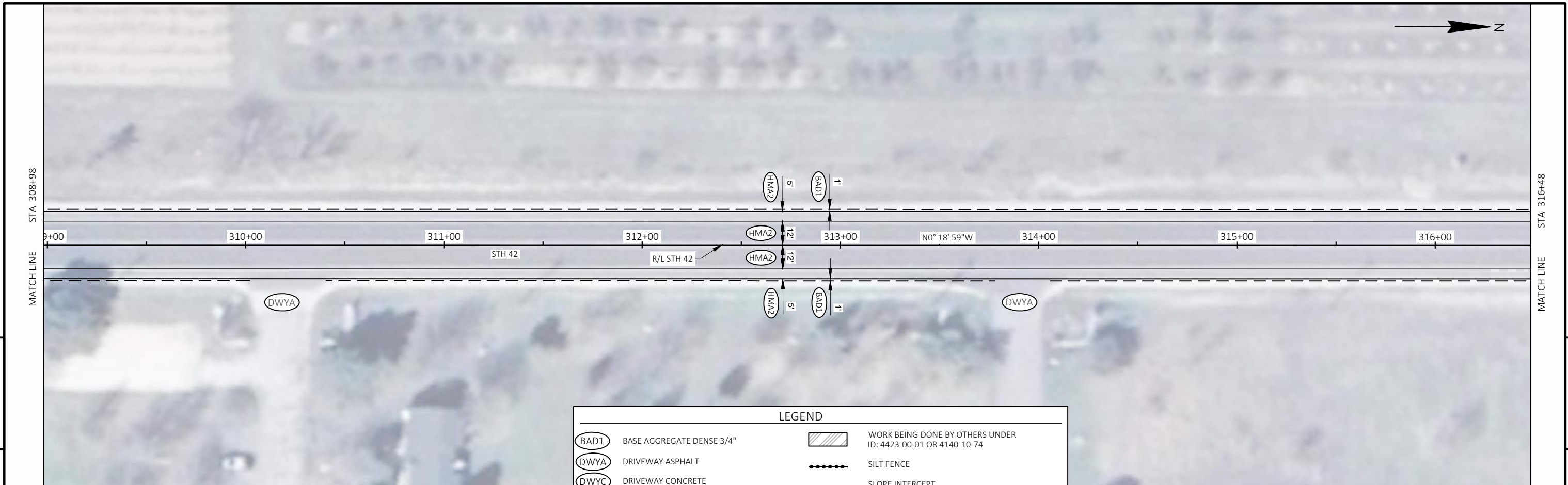
PI: 296+03.73
 PI STA = 296+03.73
 Y = 258579.400
 X = 527927.220
 DELTA = 7°30'33"
 D = 0°30'00"
 T = 376.00'
 L = 750.93'
 R = 5729.58'
 PC STA = 292+27.73
 PT STA = 299+78.66

LEGEND	
BAD1	BASE AGGREGATE DENSE 3/4"
DWYA	DRIVEWAY ASPHALT
DWYC	DRIVEWAY CONCRETE
DWG	DRIVEWAY GRAVEL
HMA2	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT
	WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
	SILT FENCE
	SLOPE INTERCEPT
	REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

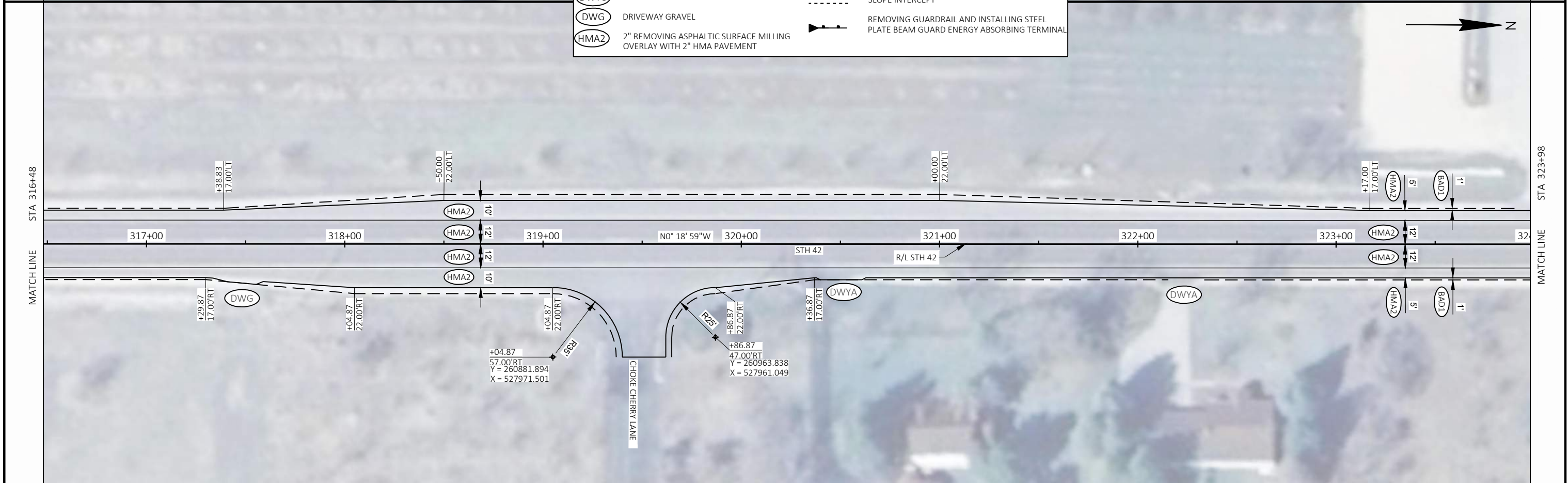


STA 305+00 END
 ASPHALTIC CENTERLINE AND
 SHOULDER RUMBLE STRIP
 2-LANE RURAL

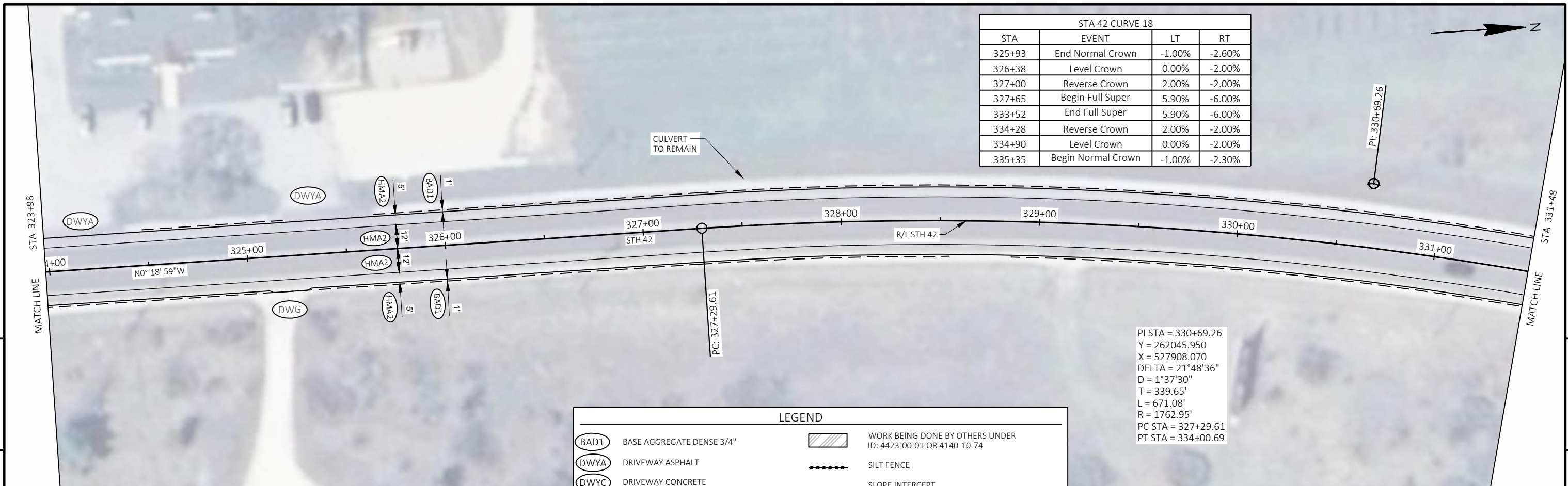
PROJECT NO: 4140-34-60	HWY: STH 42	COUNTY: DOOR	PLAN DETAILS	SHEET	E
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LEGEND	
BAD1	BASE AGGREGATE DENSE 3/4"
DWYA	DRIVEWAY ASPHALT
DWYC	DRIVEWAY CONCRETE
DWG	DRIVEWAY GRAVEL
HMA2	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT
	WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
	SILT FENCE
	SLOPE INTERCEPT
	REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL



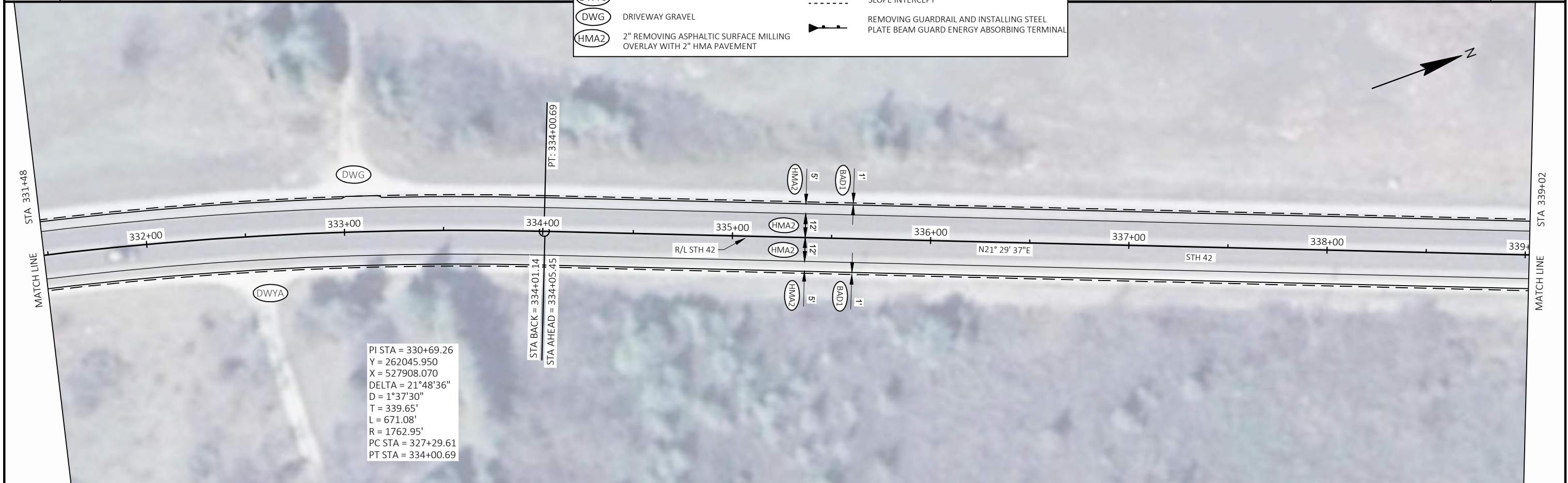
PROJECT NO: 4140-34-60	HWY: STH 42	COUNTY: DOOR	PLAN DETAILS	SHEET	E
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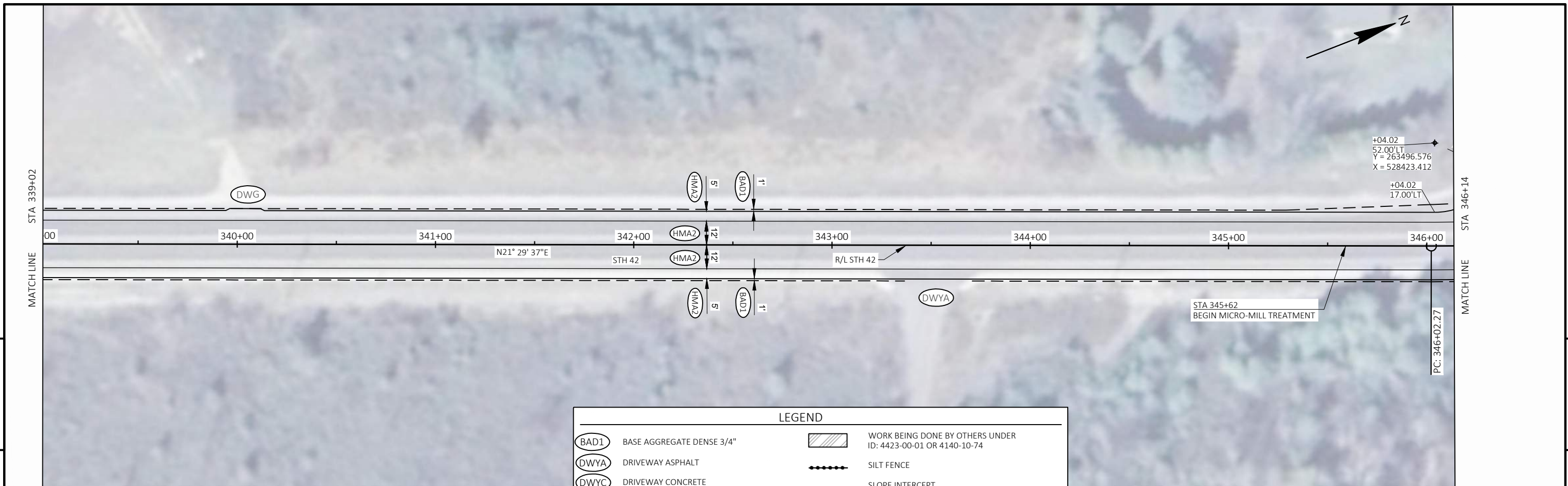
STA 42 CURVE 18			
STA	EVENT	LT	RT
325+93	End Normal Crown	-1.00%	-2.60%
326+38	Level Crown	0.00%	-2.00%
327+00	Reverse Crown	2.00%	-2.00%
327+65	Begin Full Super	5.90%	-6.00%
333+52	End Full Super	5.90%	-6.00%
334+28	Reverse Crown	2.00%	-2.00%
334+90	Level Crown	0.00%	-2.00%
335+35	Begin Normal Crown	-1.00%	-2.30%

PI STA = 330+69.26
 Y = 262045.950
 X = 527908.070
 DELTA = 21°48'36"
 D = 1°37'30"
 T = 339.65'
 L = 671.08'
 R = 1762.95'
 PC STA = 327+29.61
 PT STA = 334+00.69

LEGEND		
	BAD1	BASE AGGREGATE DENSE 3/4"
	DWYA	DRIVEWAY ASPHALT
	DWYC	DRIVEWAY CONCRETE
	DWG	DRIVEWAY GRAVEL
	HMA2	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT
		WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
		SILT FENCE
		SLOPE INTERCEPT
		REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

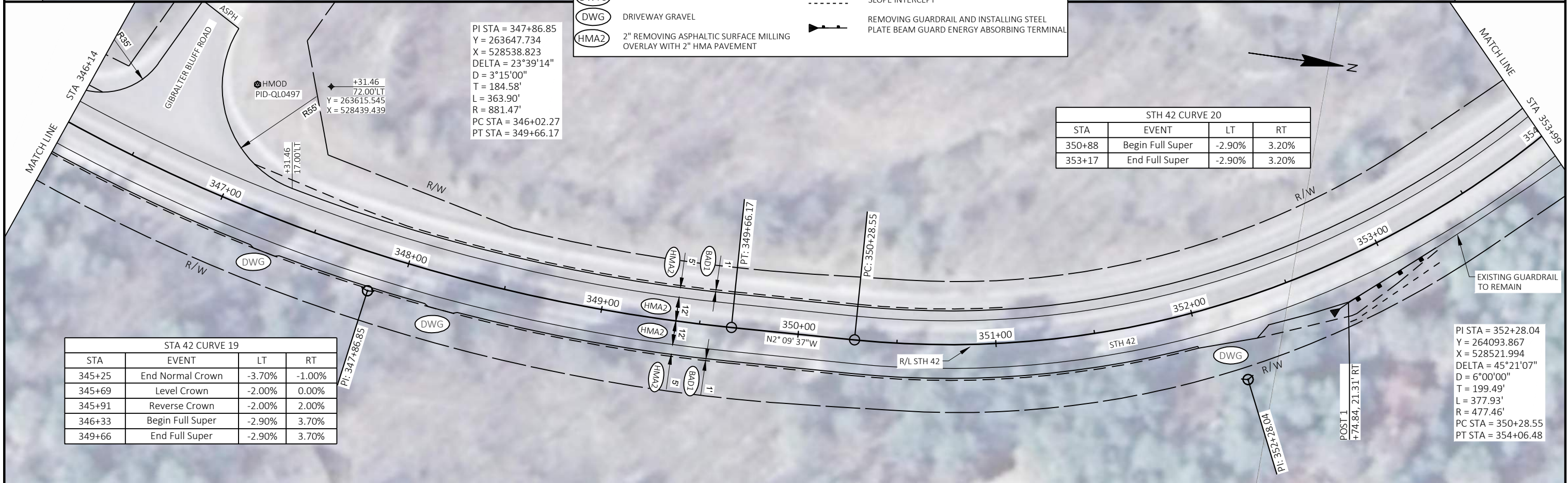


PI STA = 330+69.26
 Y = 262045.950
 X = 527908.070
 DELTA = 21°48'36"
 D = 1°37'30"
 T = 339.65'
 L = 671.08'
 R = 1762.95'
 PC STA = 327+29.61
 PT STA = 334+00.69



LEGEND

BAD1	BASE AGGREGATE DENSE 3/4"		WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
DWYA	DRIVEWAY ASPHALT		SILT FENCE
DWYC	DRIVEWAY CONCRETE		SLOPE INTERCEPT
DWG	DRIVEWAY GRAVEL		REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
HMA2	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT		



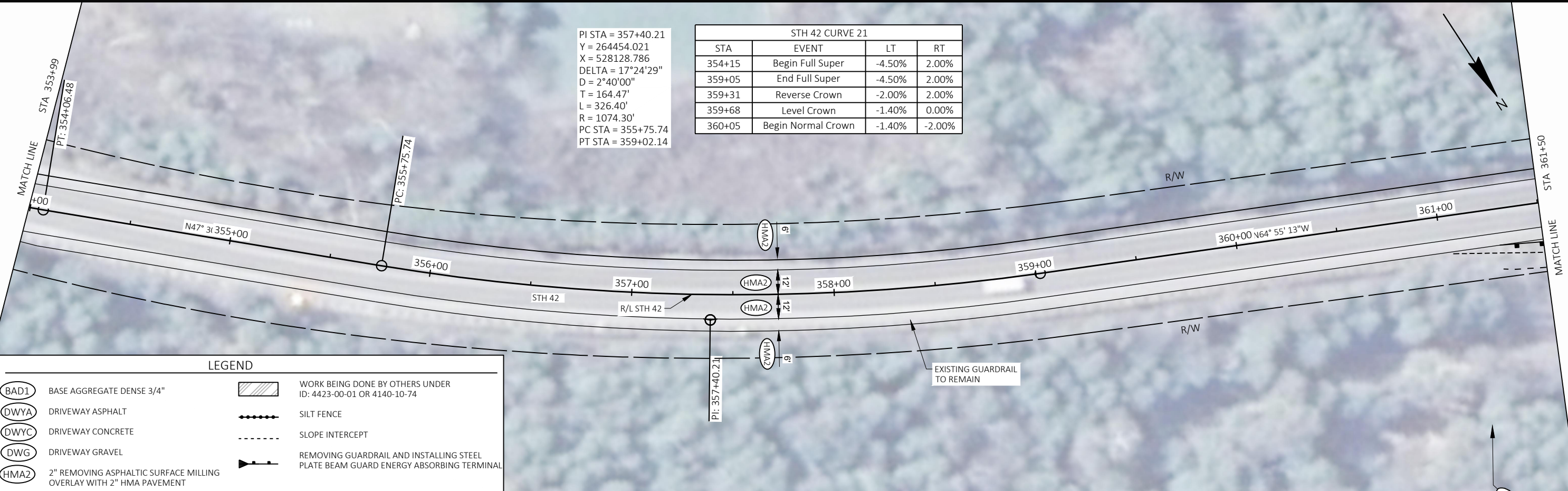
PI STA = 347+86.85
 Y = 263647.734
 X = 528538.823
 DELTA = 23°39'14"
 D = 3°15'00"
 T = 184.58'
 L = 363.90'
 R = 881.47'
 PC STA = 346+02.27
 PT STA = 349+66.17

STA	EVENT	LT	RT
345+25	End Normal Crown	-3.70%	-1.00%
345+69	Level Crown	-2.00%	0.00%
345+91	Reverse Crown	-2.00%	2.00%
346+33	Begin Full Super	-2.90%	3.70%
349+66	End Full Super	-2.90%	3.70%

PI STA = 352+28.04
 Y = 264093.867
 X = 528521.994
 DELTA = 45°21'07"
 D = 6°00'00"
 T = 199.49'
 L = 377.93'
 R = 477.46'
 PC STA = 350+28.55
 PT STA = 354+06.48

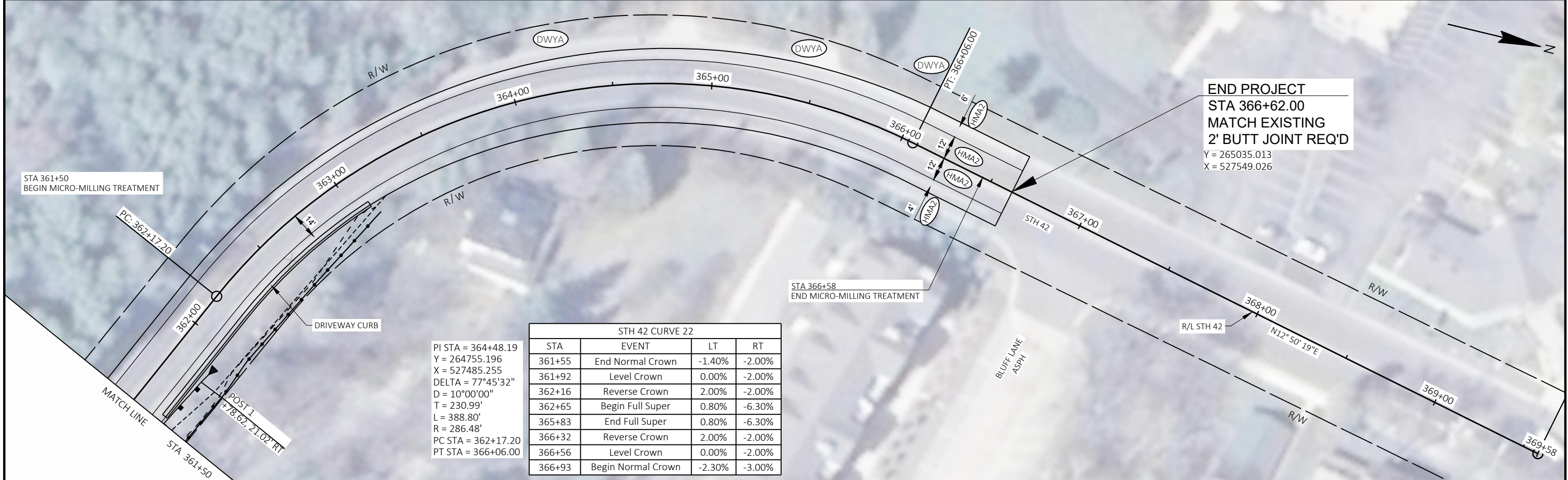
PI STA = 357+40.21
 Y = 264454.021
 X = 528128.786
 DELTA = 17°24'29"
 D = 2°40'00"
 T = 164.47'
 L = 326.40'
 R = 1074.30'
 PC STA = 355+75.74
 PT STA = 359+02.14

STH 42 CURVE 21			
STA	EVENT	LT	RT
354+15	Begin Full Super	-4.50%	2.00%
359+05	End Full Super	-4.50%	2.00%
359+31	Reverse Crown	-2.00%	2.00%
359+68	Level Crown	-1.40%	0.00%
360+05	Begin Normal Crown	-1.40%	-2.00%



LEGEND

	BASE AGGREGATE DENSE 3/4"		WORK BEING DONE BY OTHERS UNDER ID: 4423-00-01 OR 4140-10-74
	DRIVEWAY ASPHALT		SILT FENCE
	DRIVEWAY CONCRETE		SLOPE INTERCEPT
	DRIVEWAY GRAVEL		REMOVING GUARDRAIL AND INSTALLING STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
	2" REMOVING ASPHALTIC SURFACE MILLING OVERLAY WITH 2" HMA PAVEMENT		



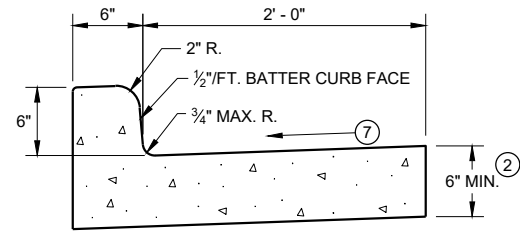
PI STA = 364+48.19
 Y = 264755.196
 X = 527485.255
 DELTA = 77°45'32"
 D = 10°00'00"
 T = 230.99'
 L = 388.80'
 R = 286.48'
 PC STA = 362+17.20
 PT STA = 366+06.00

STH 42 CURVE 22			
STA	EVENT	LT	RT
361+55	End Normal Crown	-1.40%	-2.00%
361+92	Level Crown	0.00%	-2.00%
362+16	Reverse Crown	2.00%	-2.00%
362+65	Begin Full Super	0.80%	-6.30%
365+83	End Full Super	0.80%	-6.30%
366+32	Reverse Crown	2.00%	-2.00%
366+56	Level Crown	0.00%	-2.00%
366+93	Begin Normal Crown	-2.30%	-3.00%

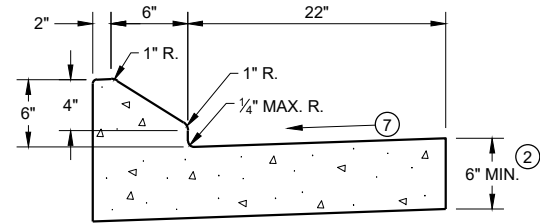
END PROJECT
 STA 366+62.00
 MATCH EXISTING
 2' BUTT JOINT REQ'D
 Y = 265035.013
 X = 527549.026

Standard Detail Drawing List

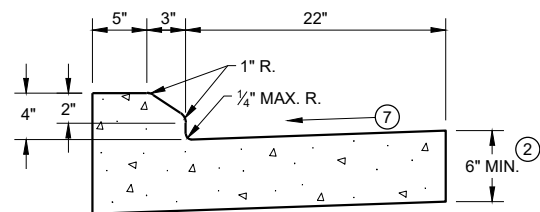
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08E09-06	SILT FENCE
13A10-03A	SHOULDER RUMBLE STRIPS - ASPHALT
13A10-03G	SHOULDER AND EDGE LINE RUMBLE STRIPS - CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS
13A10-03H	SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23C	PAVEMENT MARKING (TURN LANES)
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C12-09B	TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE
15C19-08A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES



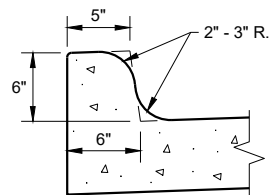
TYPES A¹ & D



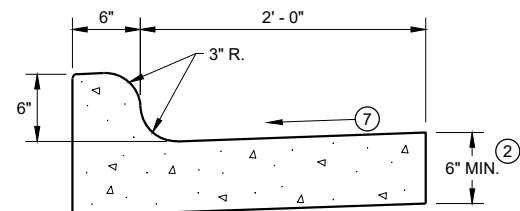
6" SLOPED CURB TYPES G¹ & J



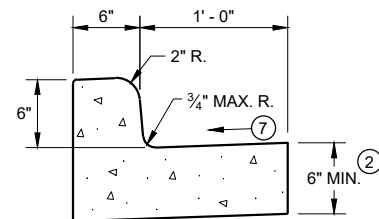
4" SLOPED CURB TYPES G¹ & J



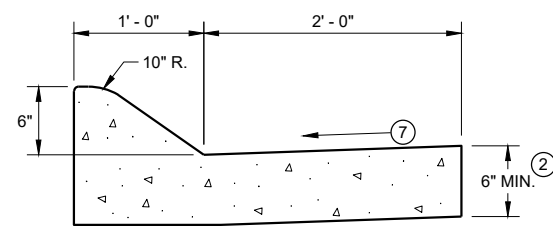
TYPES K¹ & L
(OPTIONAL CURB SHAPE)



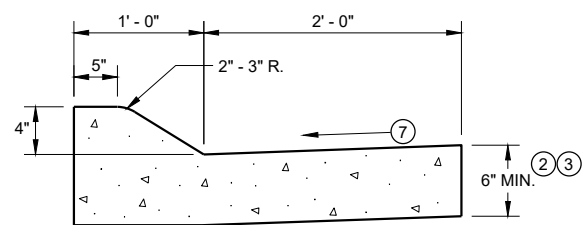
TYPES K¹ & L
CONCRETE CURB AND GUTTER 30"



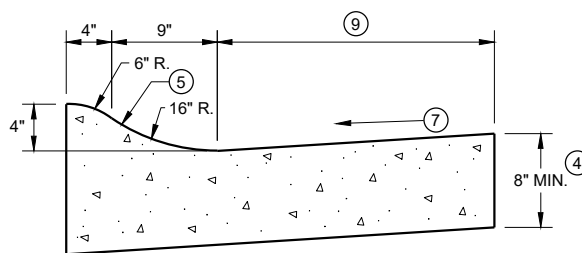
TYPES A¹ & D
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A¹ & D

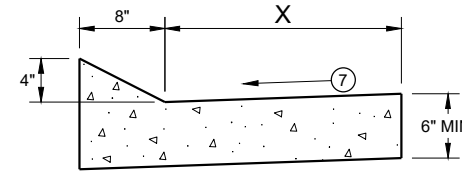


4" SLOPED CURB TYPES A¹ & D
CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R¹ & T

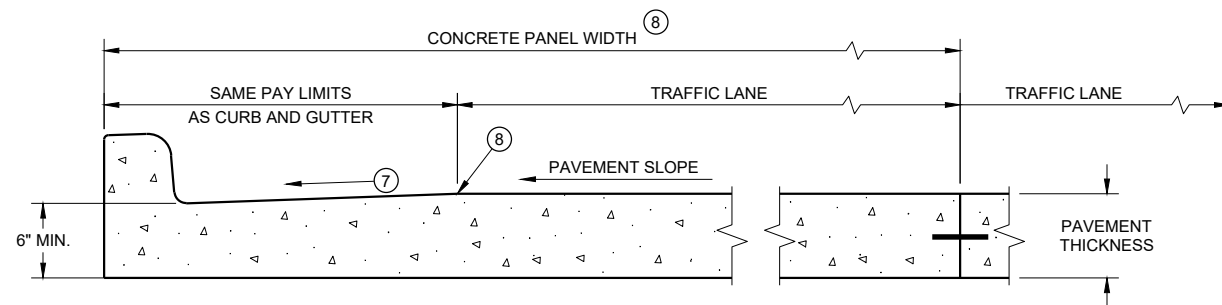
TBT & TBTT	X
30"	22"
36"	28"



TYPES TBT & TBTT¹
CONCRETE CURB AND GUTTER

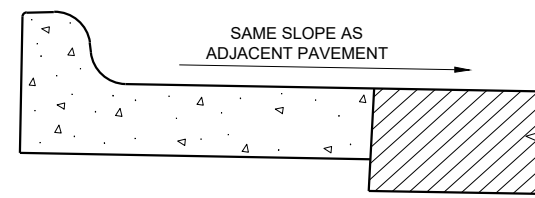
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT* WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER⁶
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

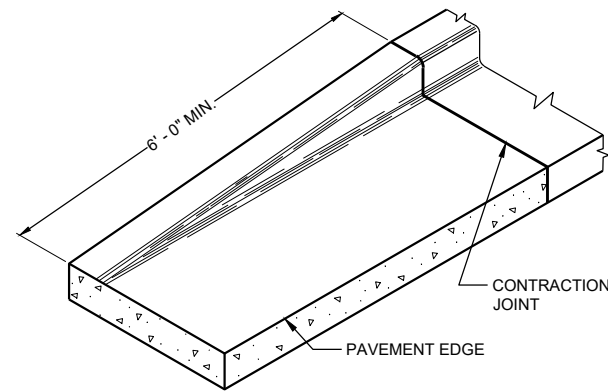
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

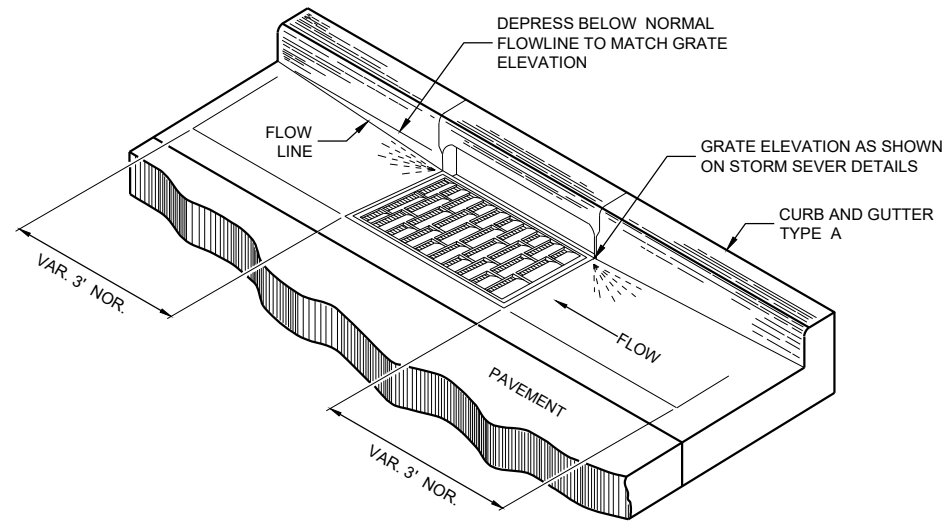
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

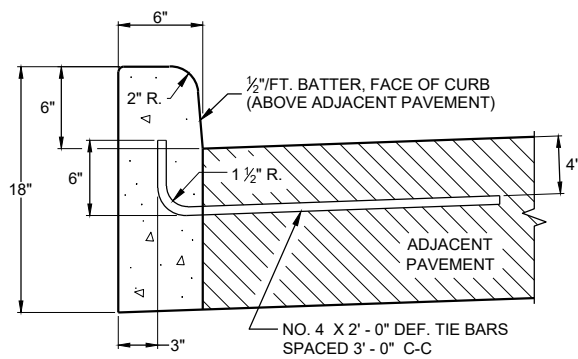
GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

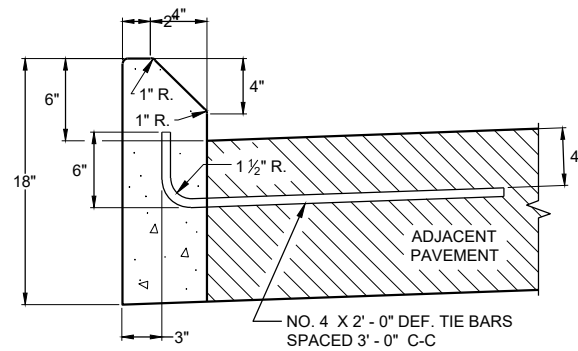
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

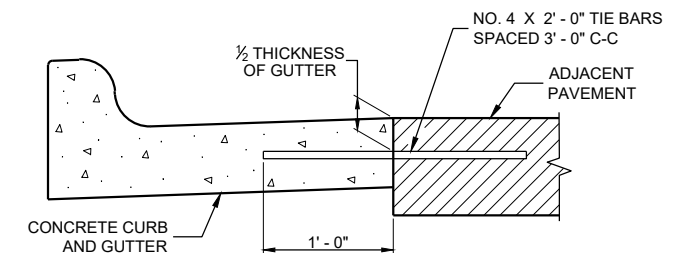
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑩ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.
- ⑪ PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.



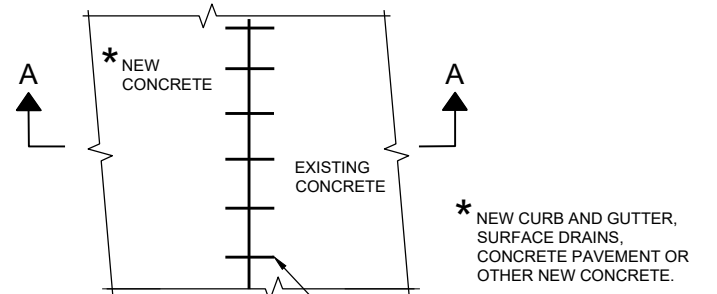
TYPES A^① & D



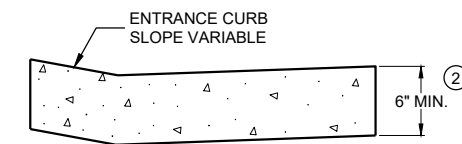
**TYPES G^① & J
CONCRETE CURB**



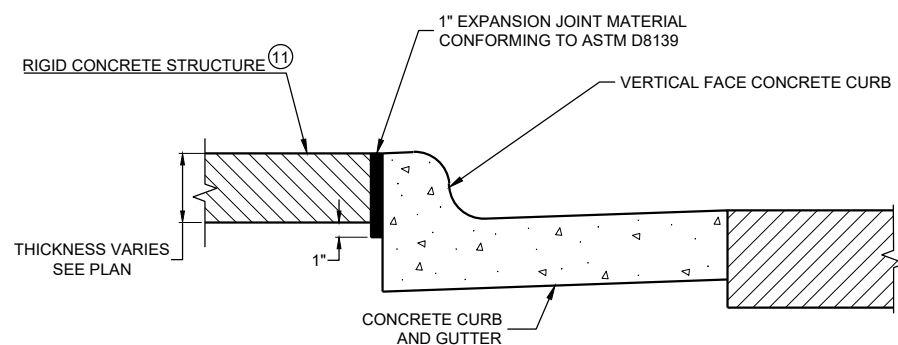
TYPICAL TIE BAR LOCATION^①



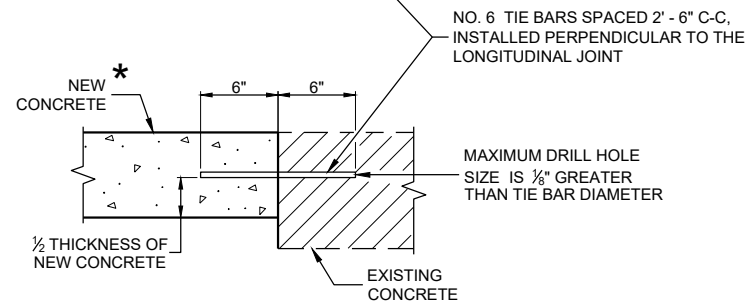
PLAN VIEW



**DRIVEWAY ENTRANCE CURB^⑩
(WHEN DIRECTED BY THE ENGINEER)**



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE^⑪



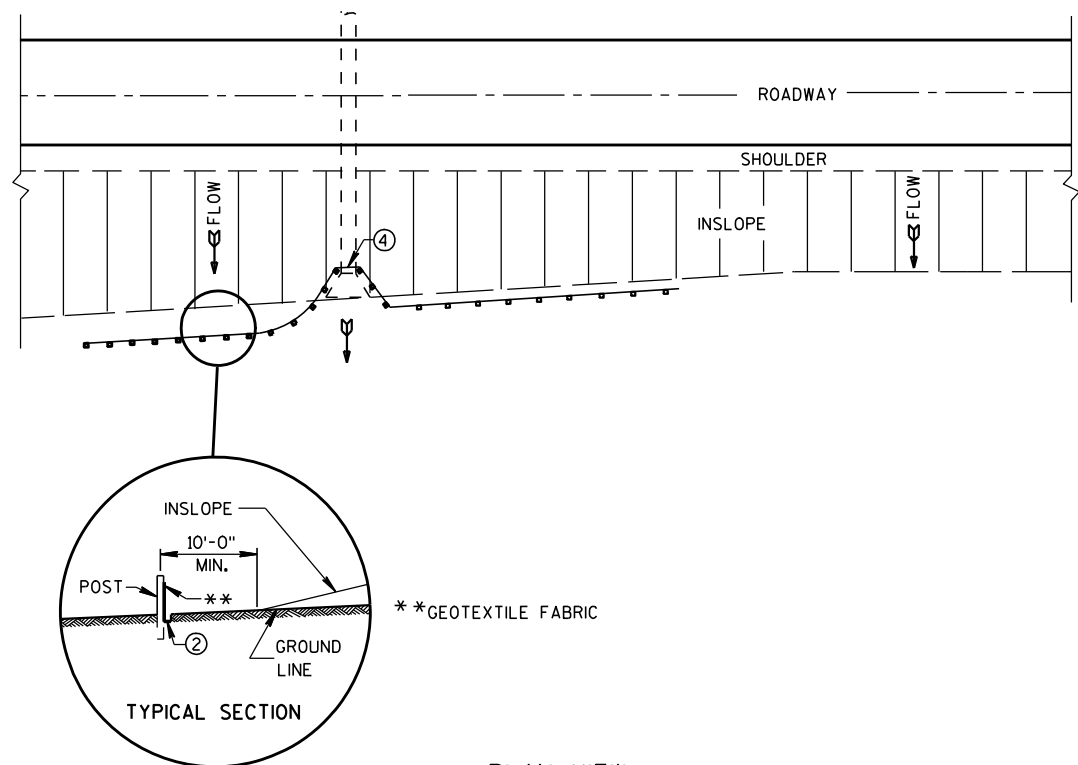
**SECTION A - A
TIE BARS DRILLED INTO EXISTING PAVEMENT**

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

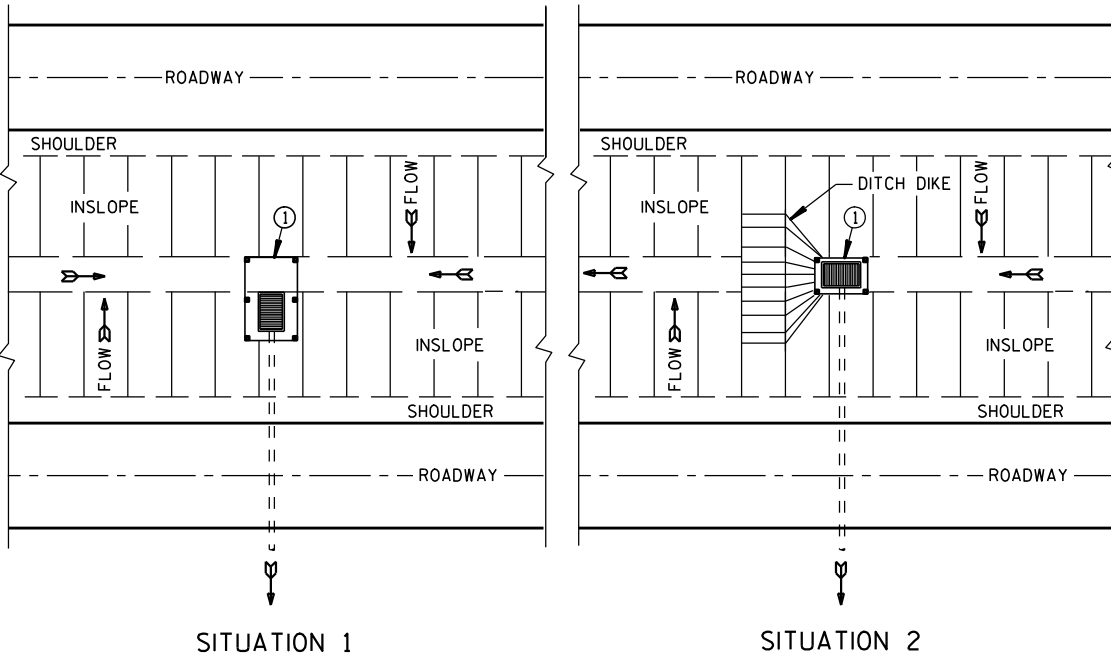
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE May 2023 /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

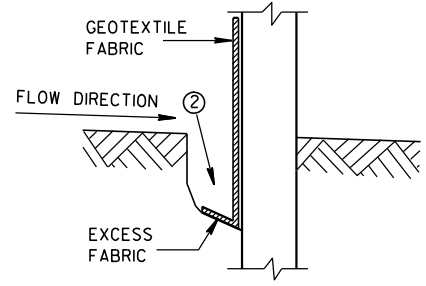


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

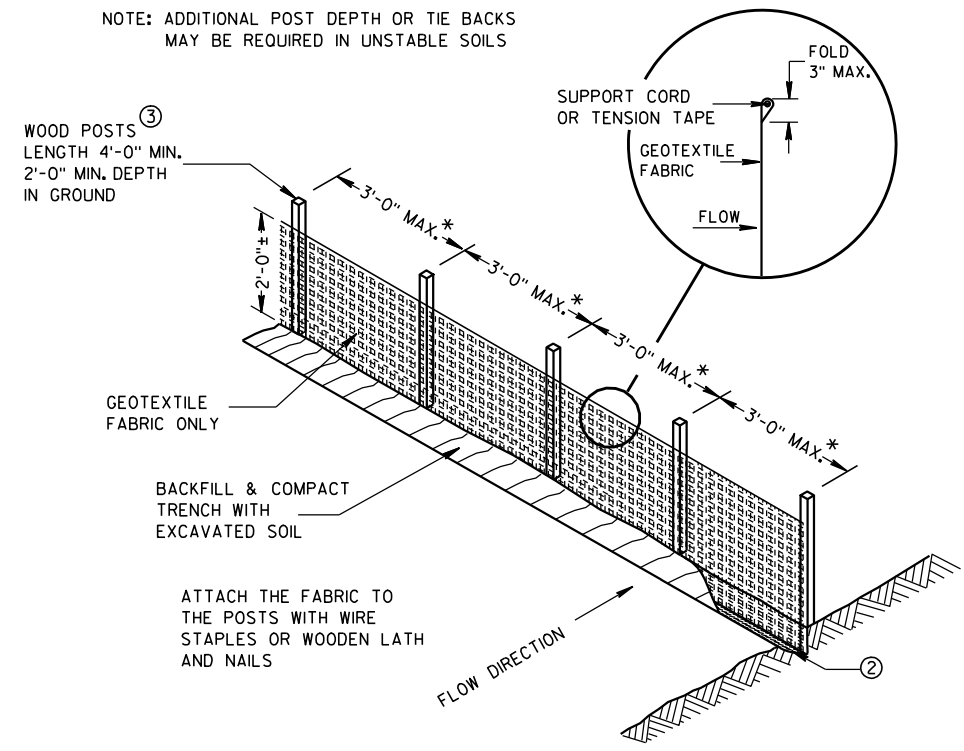
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



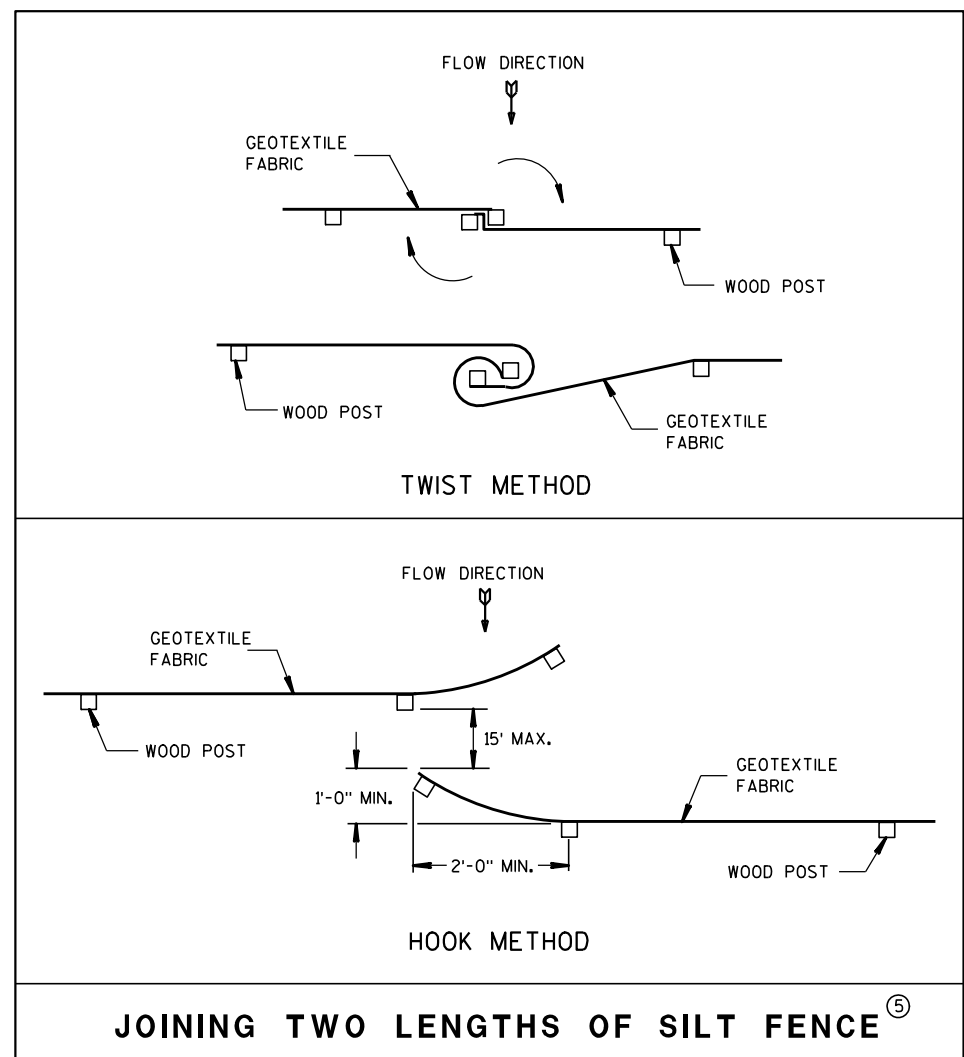
TRENCH DETAIL

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

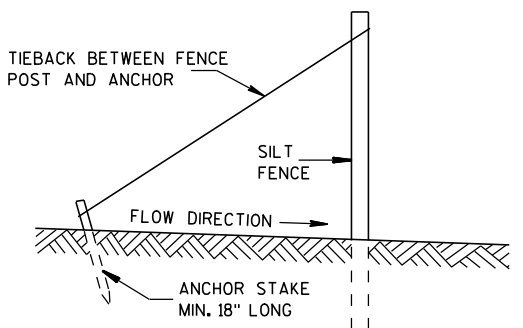


SILT FENCE

* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.



JOINING TWO LENGTHS OF SILT FENCE ⑤



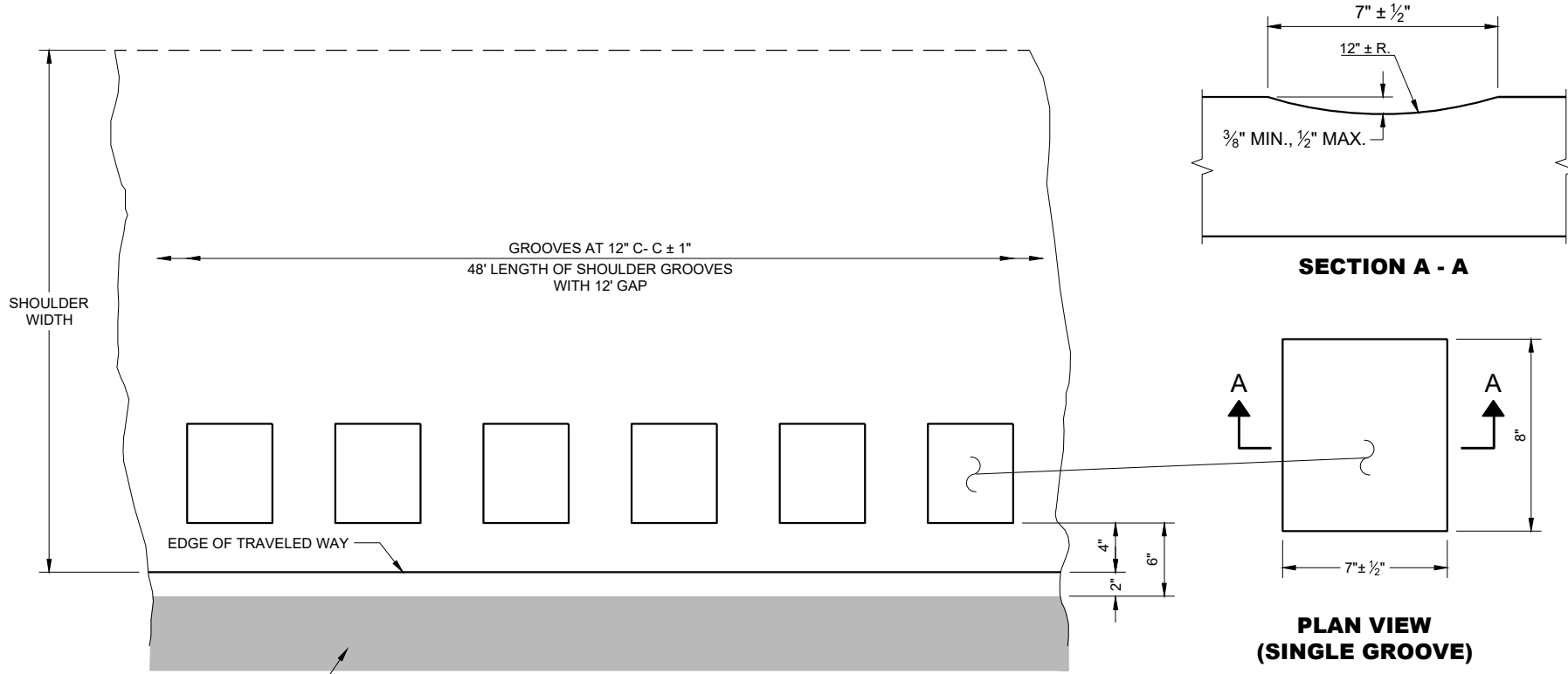
SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Canestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

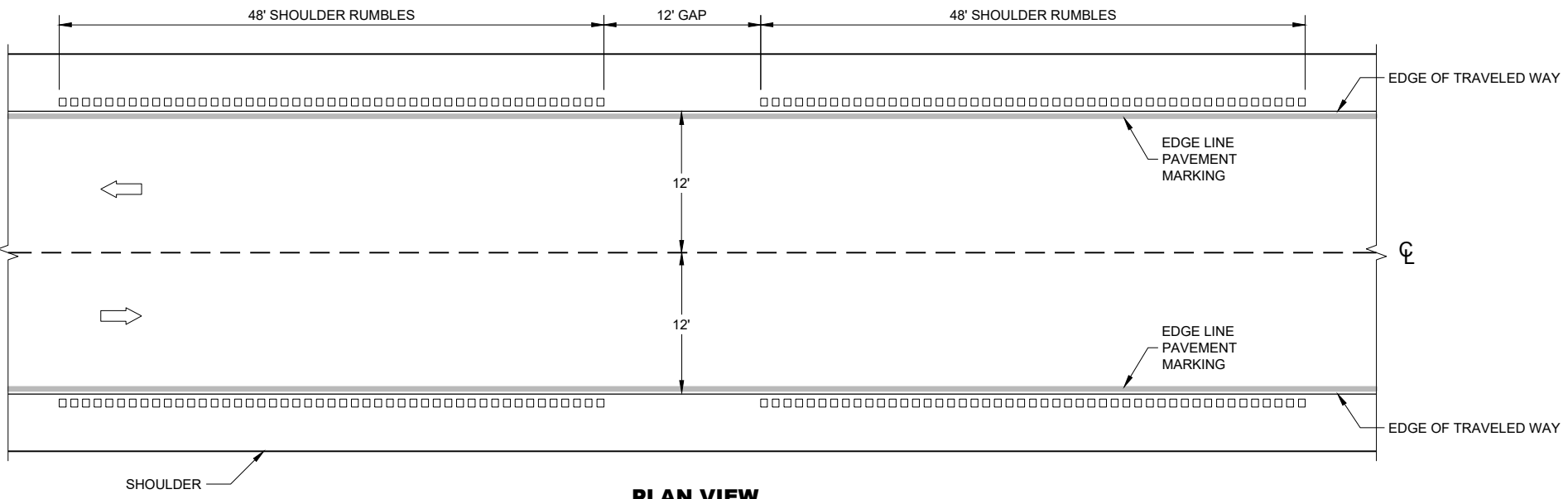
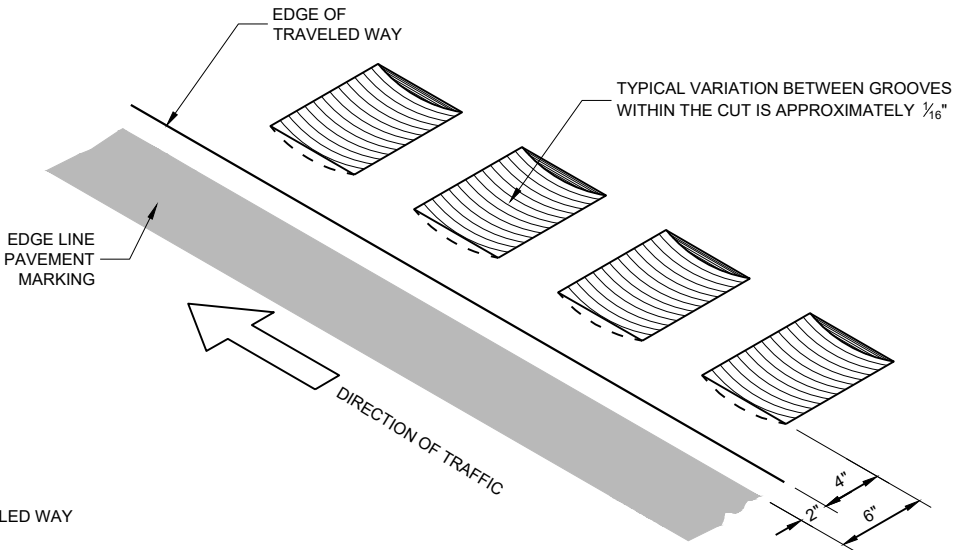
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A10 SHEETS "g" AND "h".

SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.

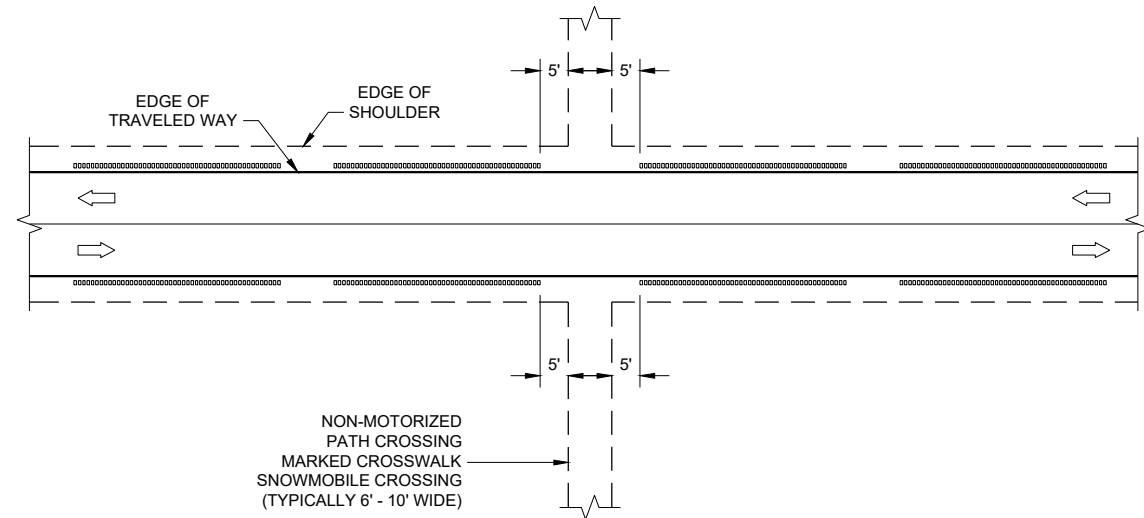


PLAN DETAIL VIEW SHOULDER WITH GROOVES

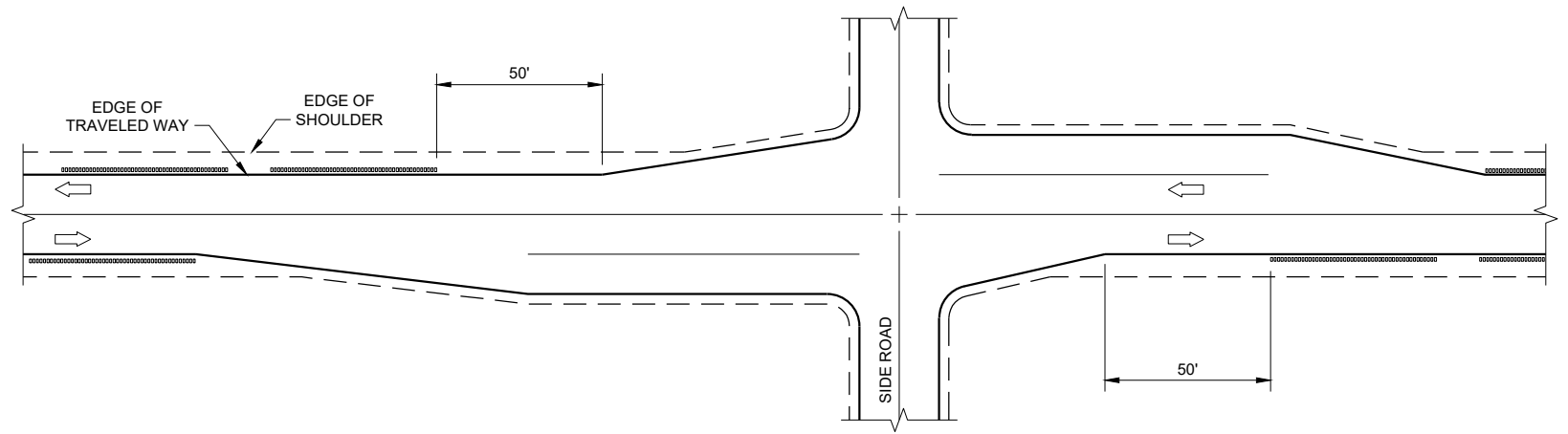


PLAN VIEW SHOULDER RUMBLE STRIPS - ASPHALT

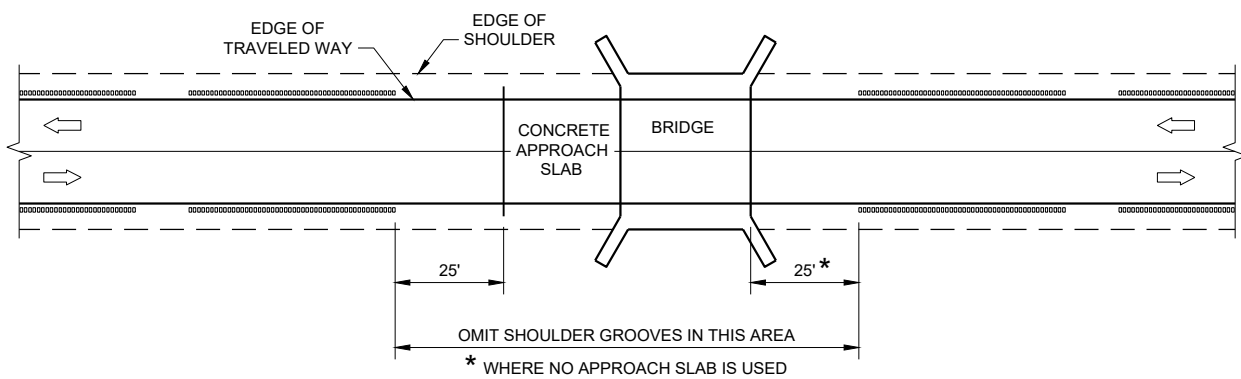
SHOULDER RUMBLE STRIPS ASPHALT
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



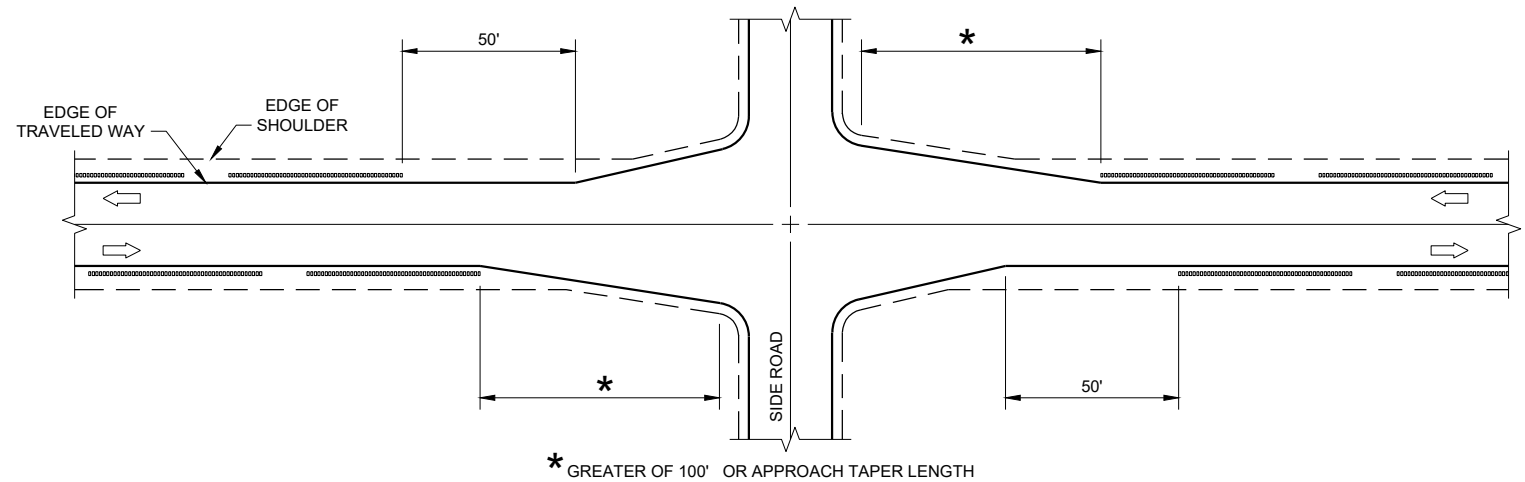
GROOVES AT MISCELLANEOUS CROSSINGS



GROOVES AT RIGHT TURN LANE

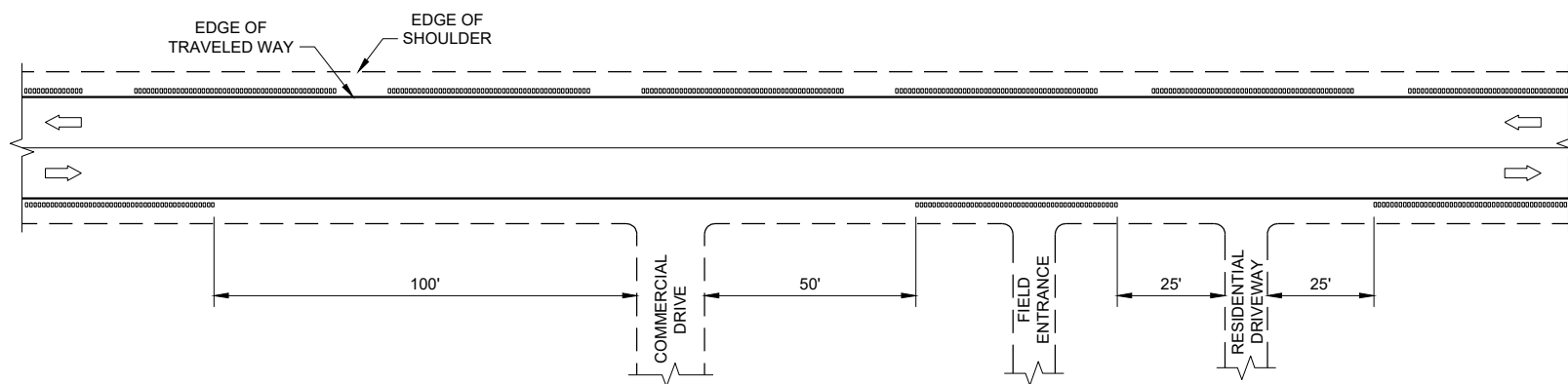


GROOVES AT BRIDGES



GROOVES AT INTERSECTIONS WITH APPROACH TAPER

* GREATER OF 100' OR APPROACH TAPER LENGTH



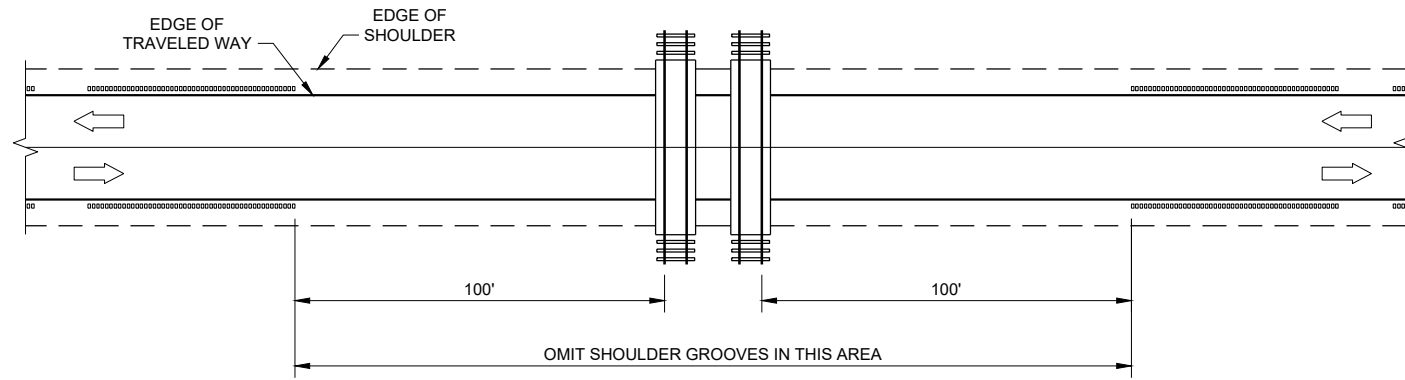
GROOVES AT DRIVEWAYS

GENERAL NOTES

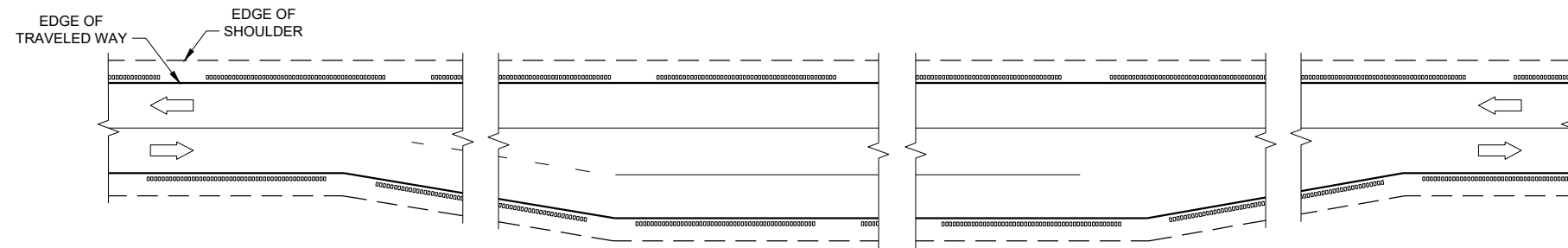
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

**SHOULDER AND EDGE LINE
RUMBLE STRIPS
CROSSINGS, INTERSECTIONS,
BRIDGES, DRIVEWAYS**

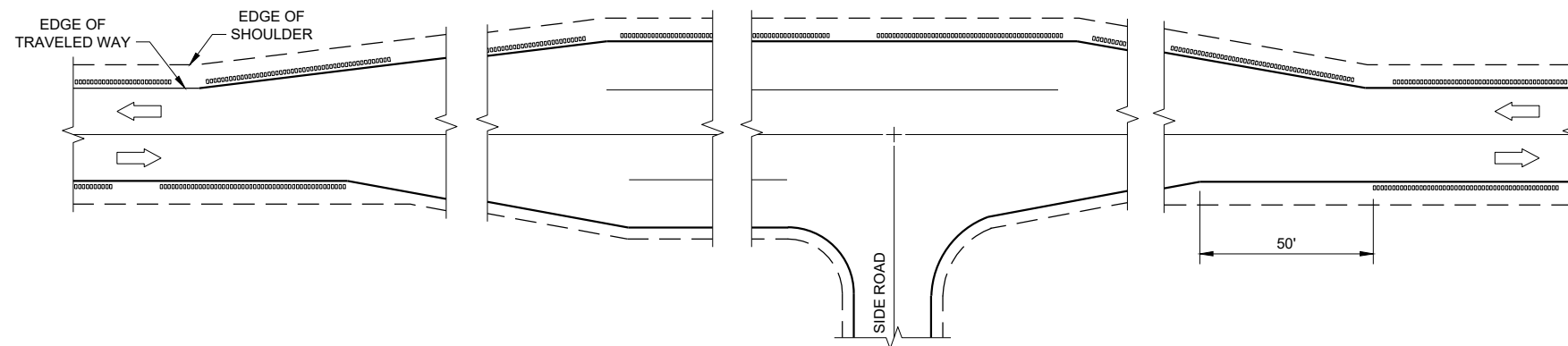
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GROOVES AT RAILROADS



GROOVES AT PASSING AND CLIMBING LANES



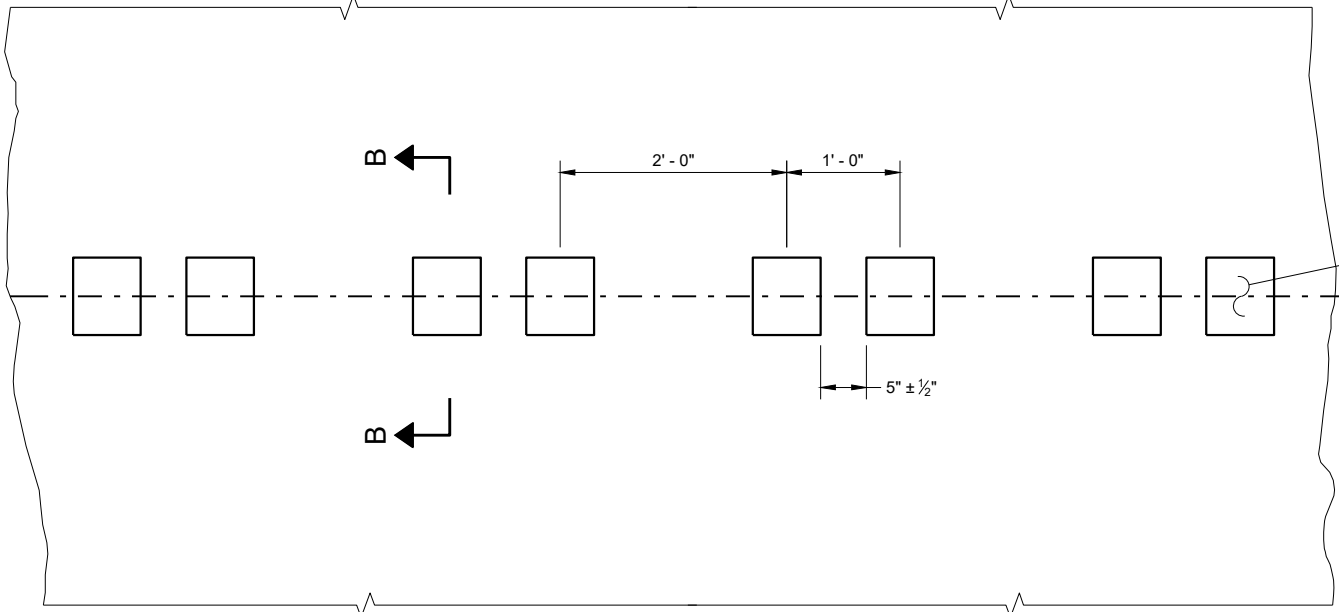
GROOVES AT BYPASS LANES

SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ John Jenkins ROADWAY STANDARDS DEVELOPMENT ENGINEER
<small>FHWA</small>	

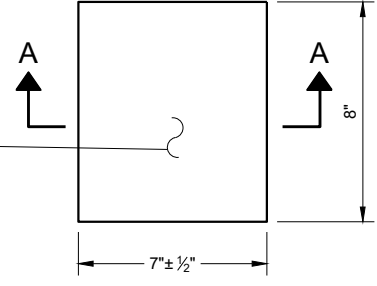
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

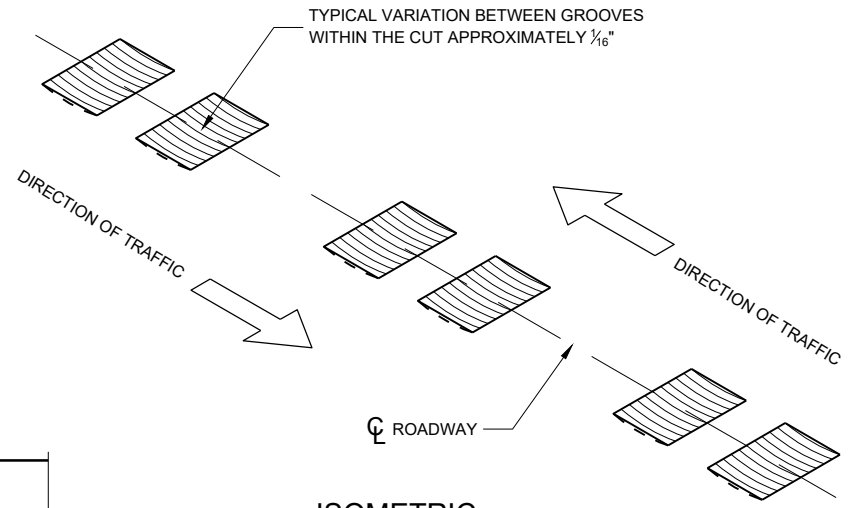
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



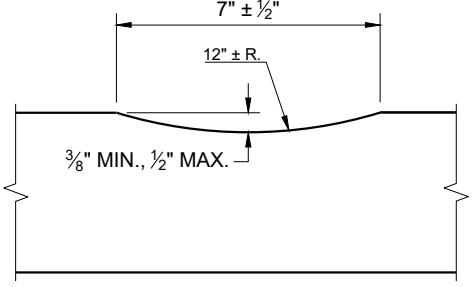
PLAN DETAIL VIEW



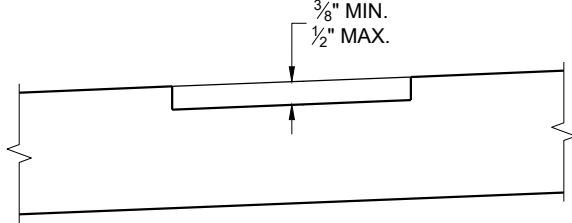
PLAN VIEW (SINGLE GROOVE)



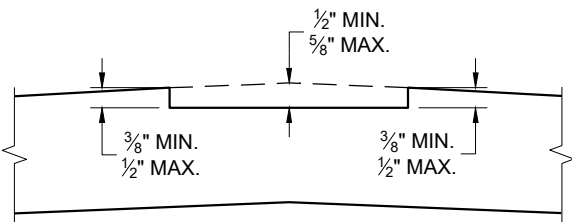
ISOMETRIC



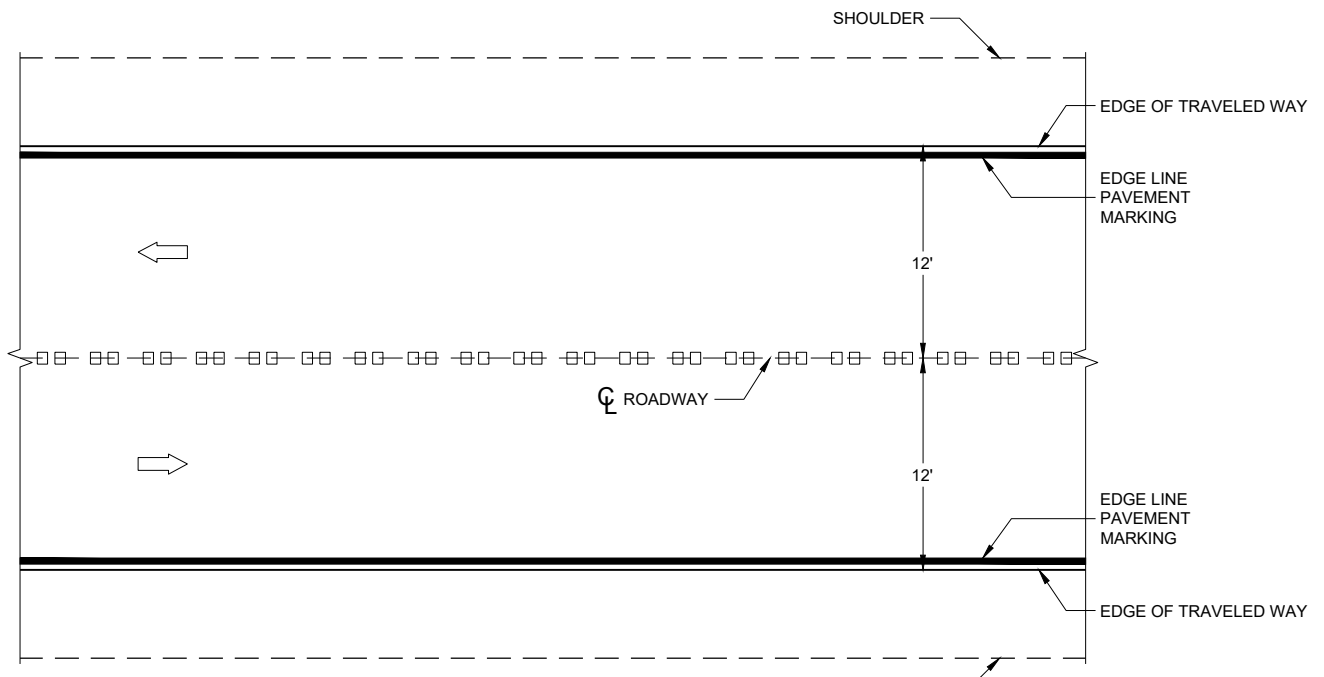
SECTION A - A



SECTION B - B SUPERELEVATED ROADWAY



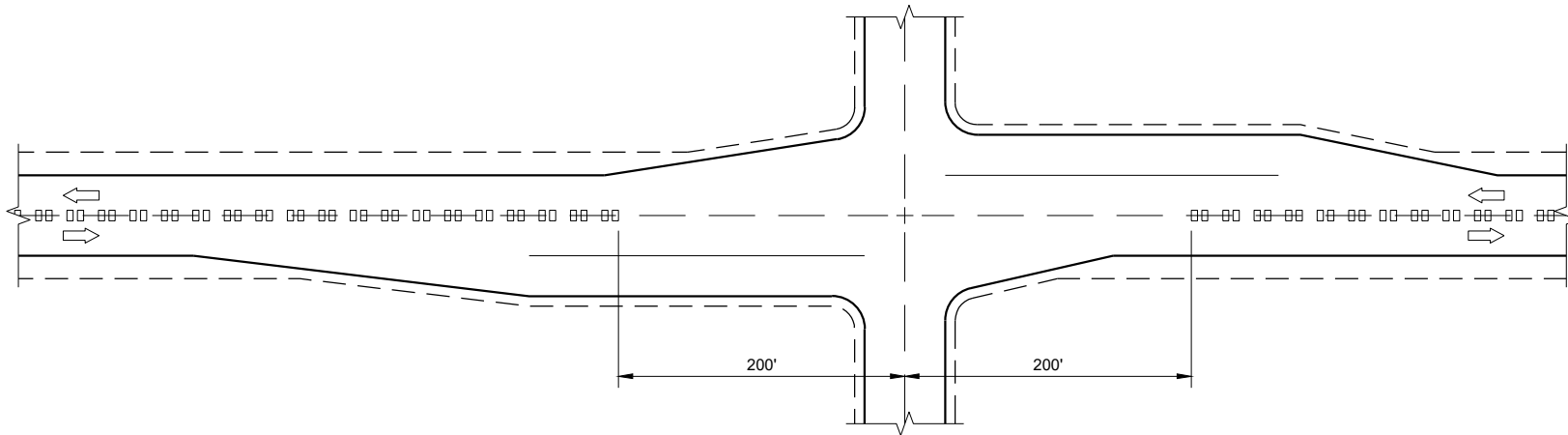
SECTION B - B CROWNED ROADWAY



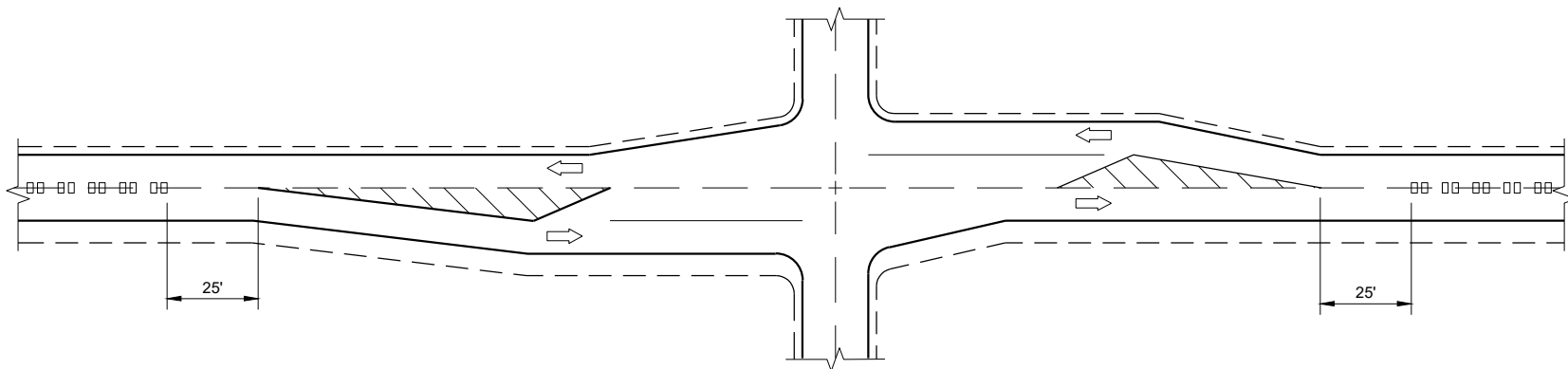
PLAN VIEW

CENTERLINE RUMBLE STRIPS - ASPHALT

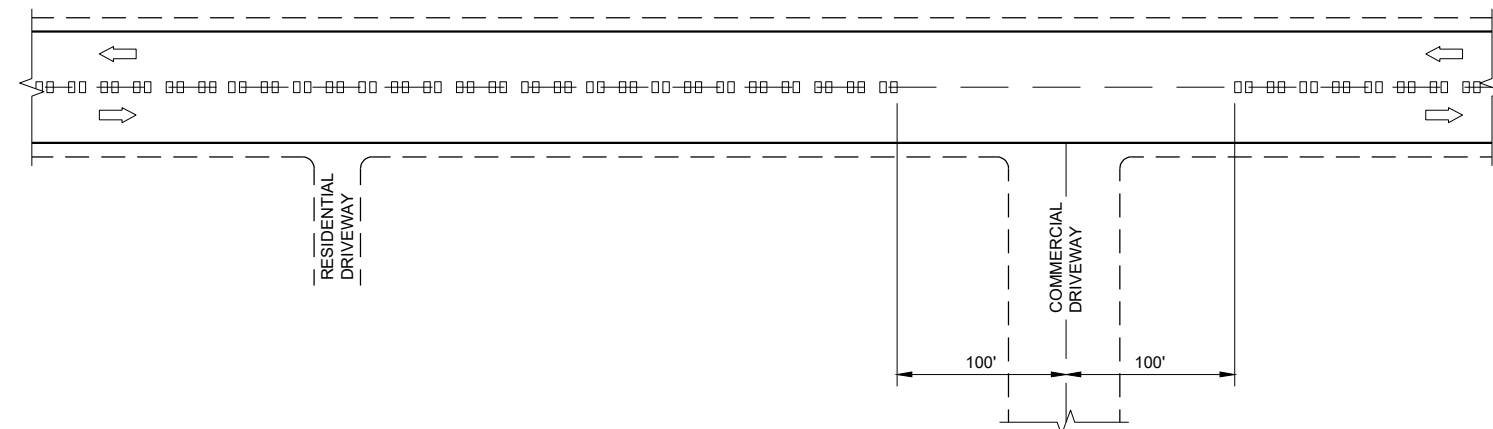
CENTERLINE RUMBLE STRIPS - ASPHALT
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



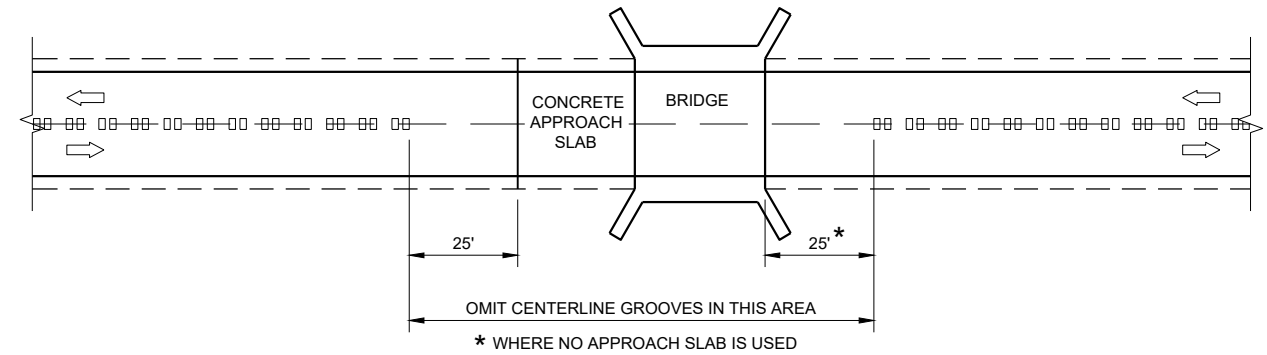
**CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)**



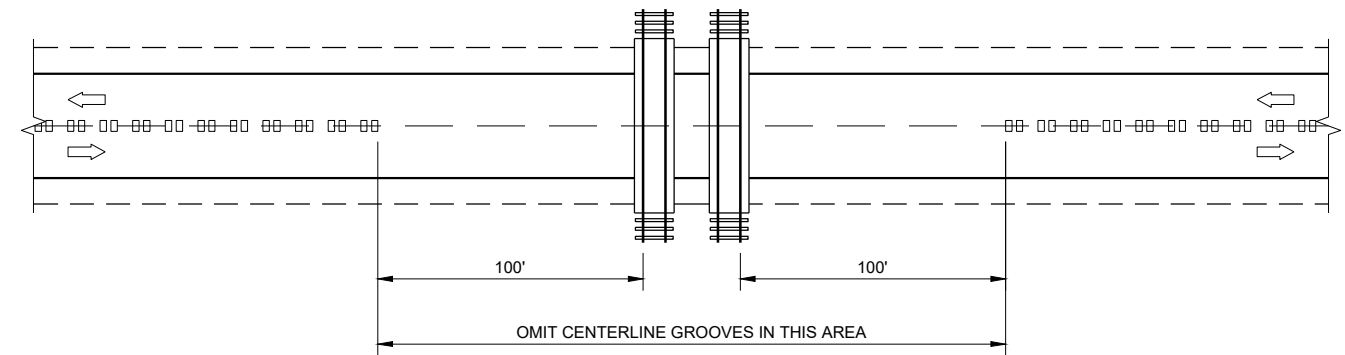
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.

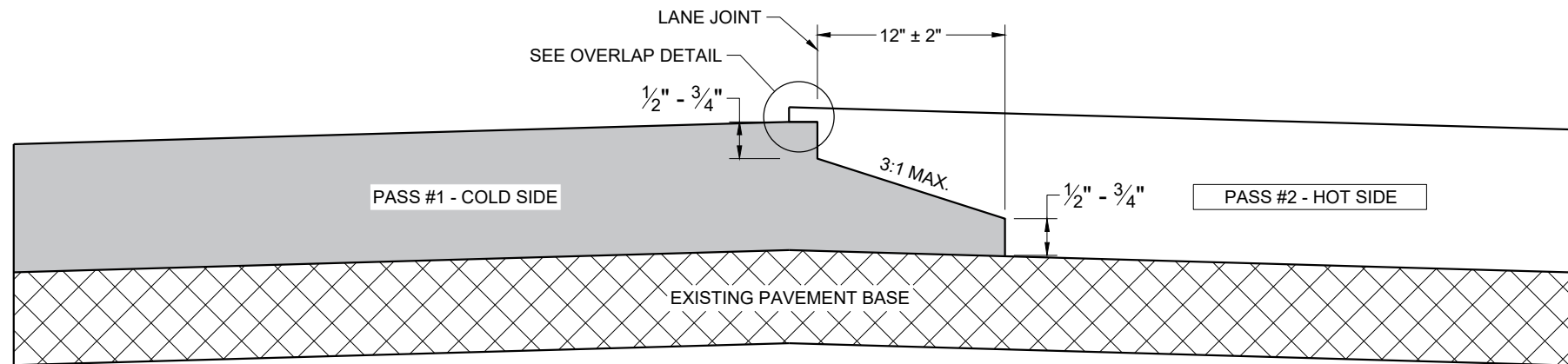


CENTERLINE GROOVES AT BRIDGES

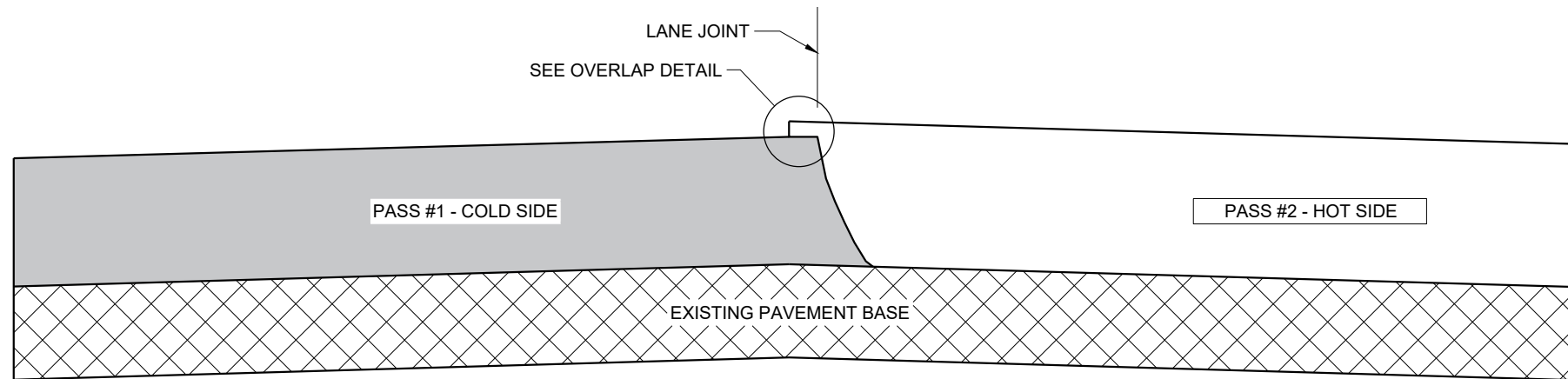


CENTERLINE GROOVES AT RAILROADS

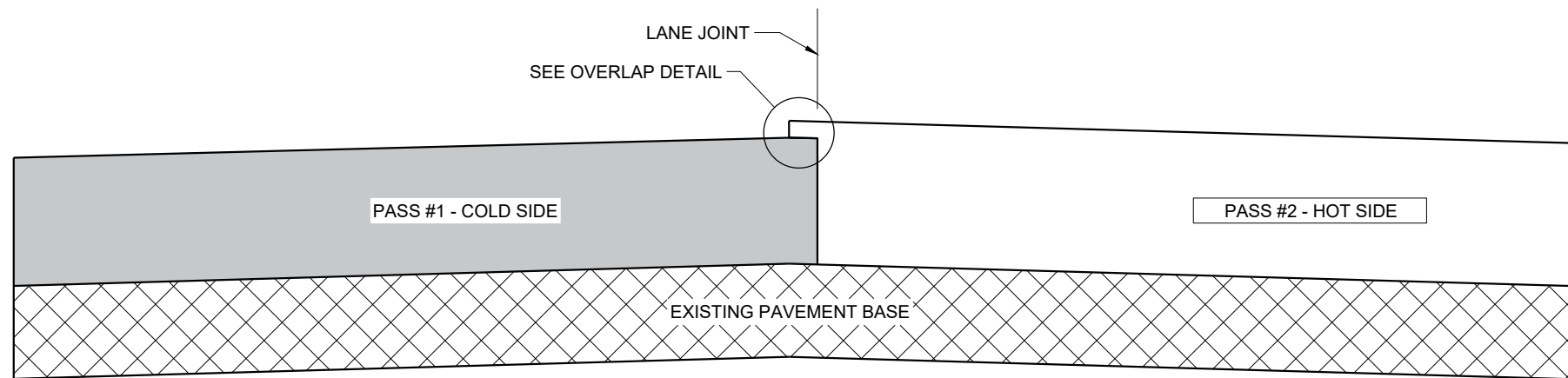
CENTER LINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAIL ROADS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ John Jenkins ROADWAY STANDARDS DEVELOPMENT ENGINEER
<small>FHWA</small>	



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)**

GENERAL NOTES

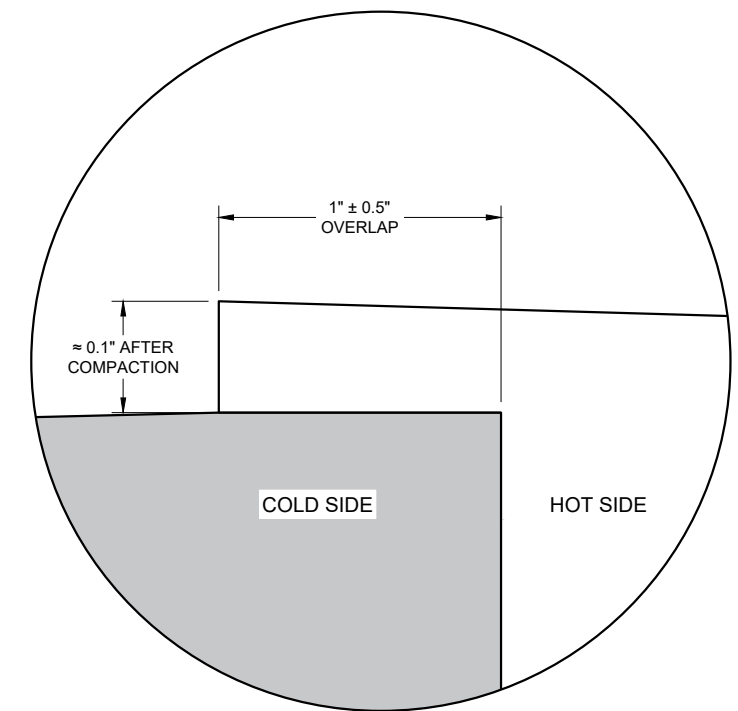
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY $0.1"$ AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO $2"$ FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

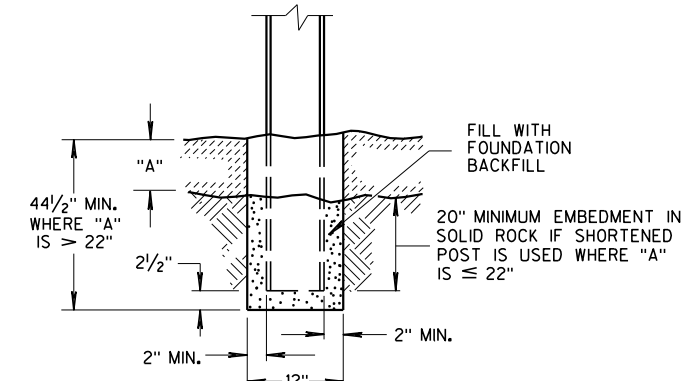
SDD 13C19 - 03

HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGINEER
FHWA	

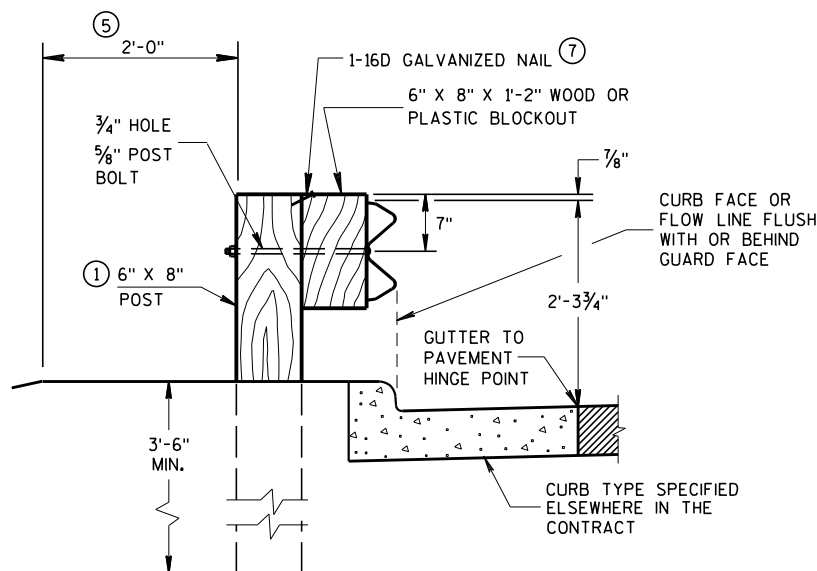
GENERAL NOTES

- ① W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS. DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.
- ② USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.
- ③ INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ④ USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.
- ⑤ IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).
- ⑥ IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2 INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN THE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATELY.
- ⑦ WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

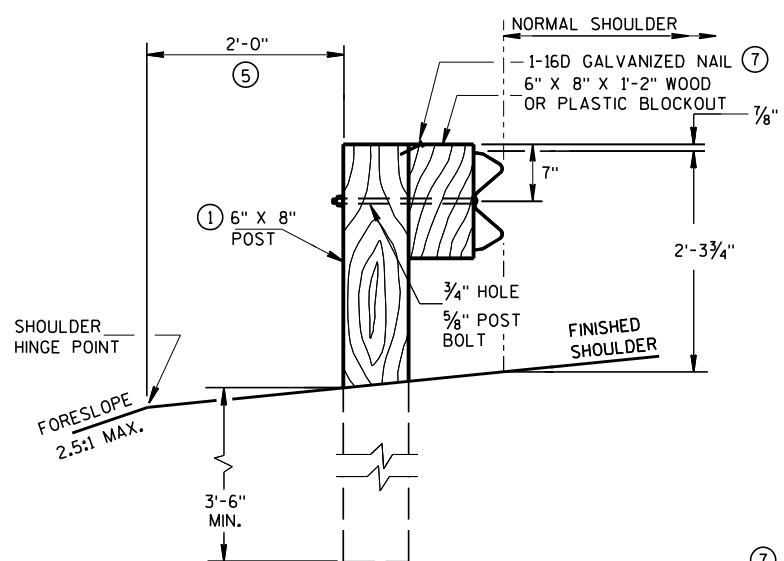
INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



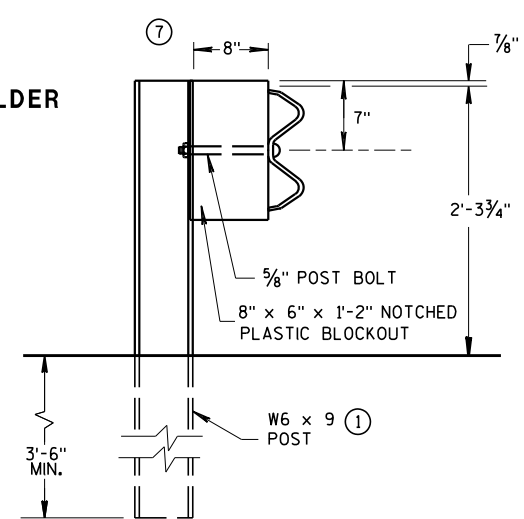
END VIEW SETTING STEEL OR WOOD POST IN ROCK ⑥



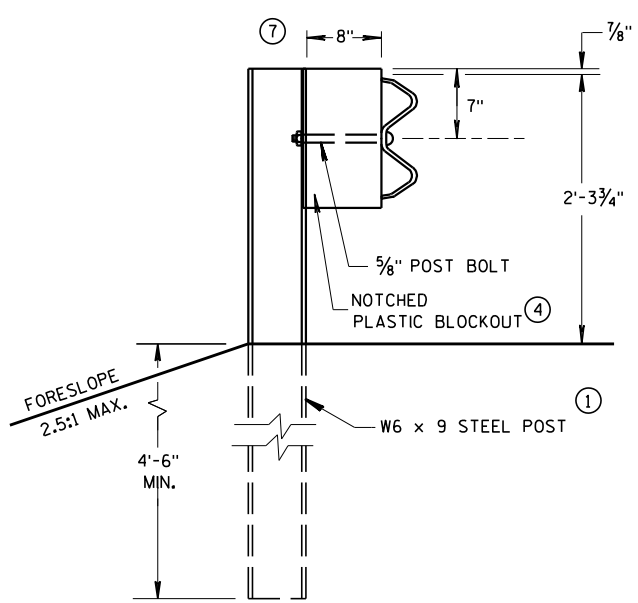
END VIEW LOCATED ALONG A CURBED ROADWAY



END VIEW LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION

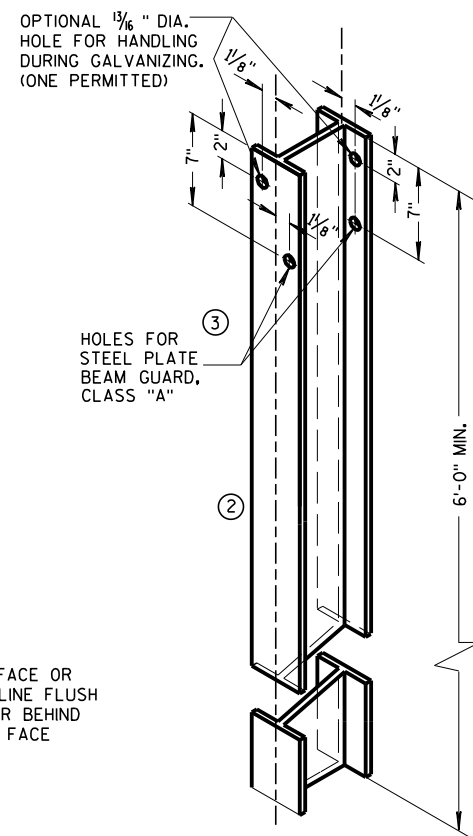


END VIEW STEEL POST & NOTCHED PLASTIC BLOCKOUT ALTERNATIVE STANDARD INSTALLATION

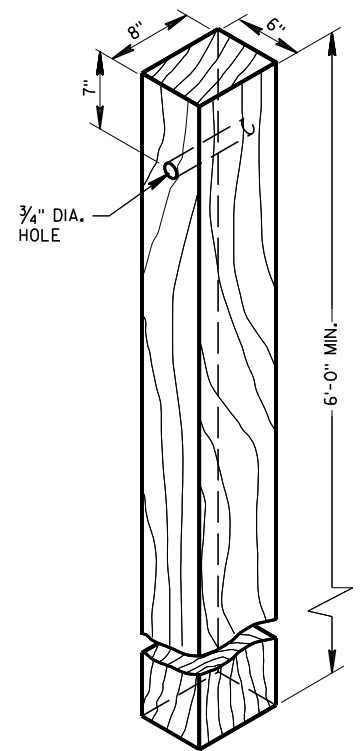


END VIEW LONGER POST AT HALF POST SPACING W BEAM (LHW)

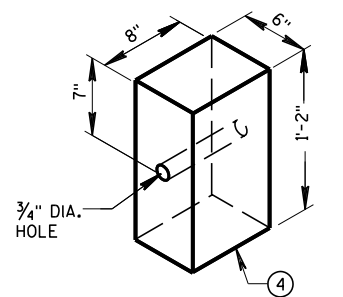
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD



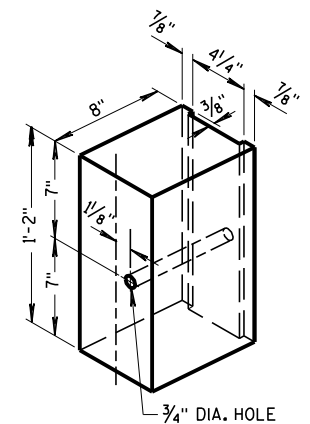
STEEL POST & HOLE PUNCHING DETAIL (W6 X 9) ①
ALL HOLES 3/8" DIAMETER EXCEPT AS NOTED



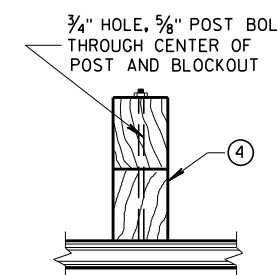
WOOD POST (6" X 8") NOMINAL



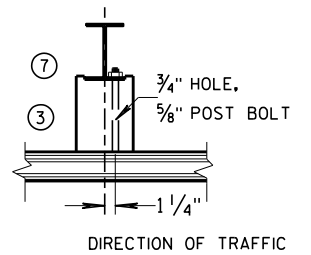
WOOD OR PLASTIC BLOCKOUT FOR WOOD POSTS



TYPICAL NOTCHED PLASTIC BLOCKOUT FOR STEEL POSTS ①



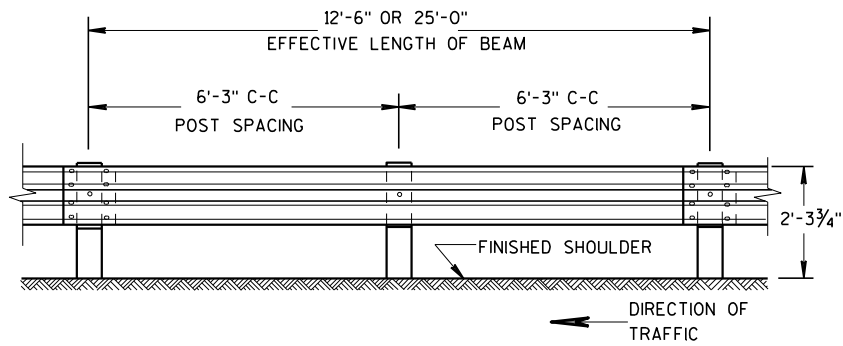
PLAN VIEW WOOD POST, BLOCKOUT & BEAM



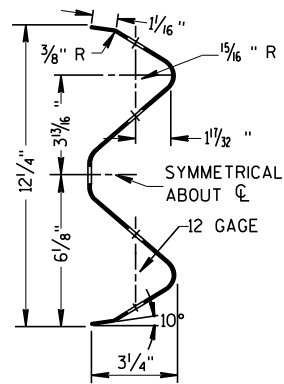
PLAN VIEW STEEL POST, NOTCHED PLASTIC BLOCKOUT & BEAM

STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS

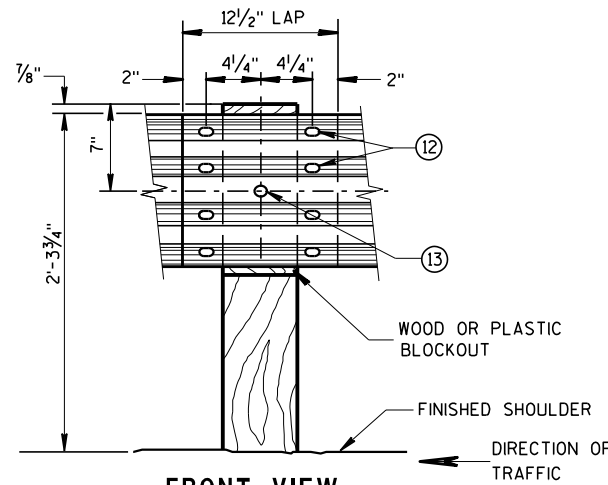
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



SECTION THRU W BEAM

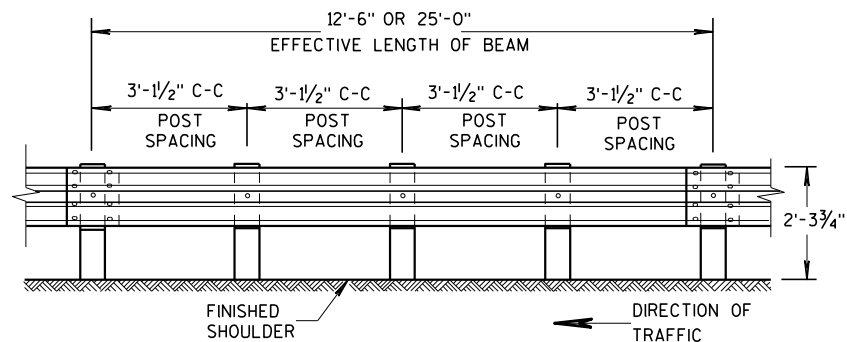


**FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL**

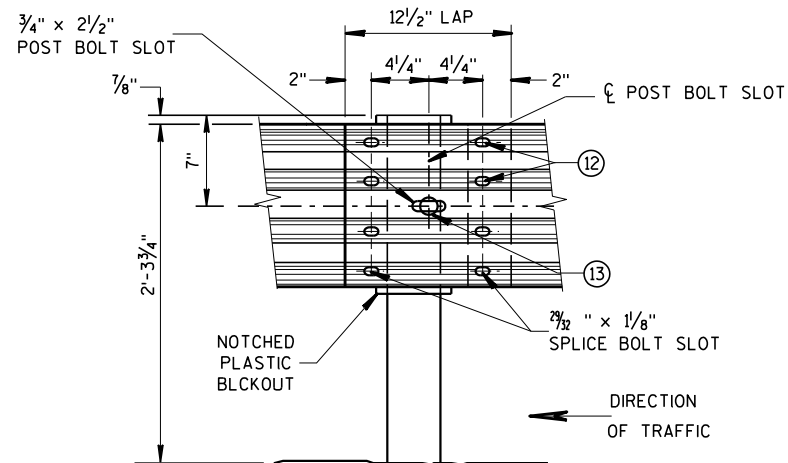
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

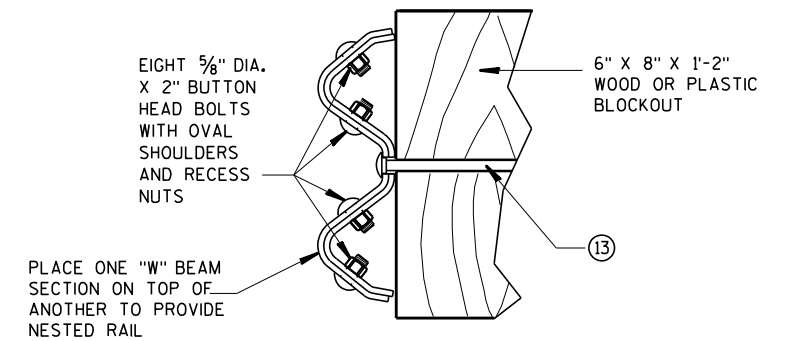
- ⑨ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.
- ⑫ 8 - 5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- ⑬ 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.



**FRONT VIEW
POST SPACING FOR LONGER POST
AT HALF POST SPACING W BEAM (LHW)**

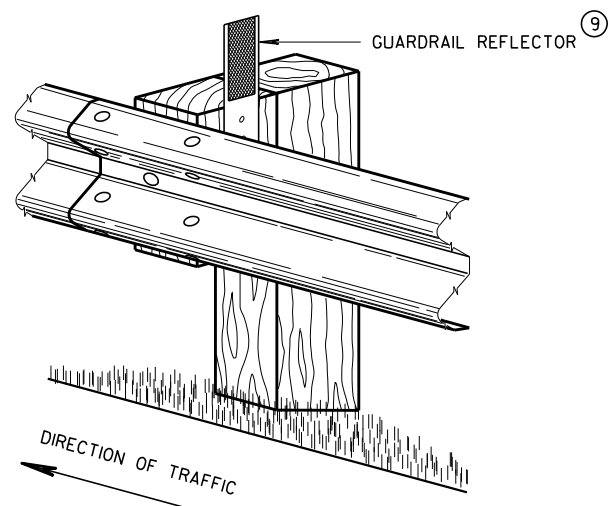


**FRONT VIEW
BEAM SPLICE AT STEEL POST
TYPICAL SPlicing DETAILS
OF STEEL PLATE BEAM GUARD**

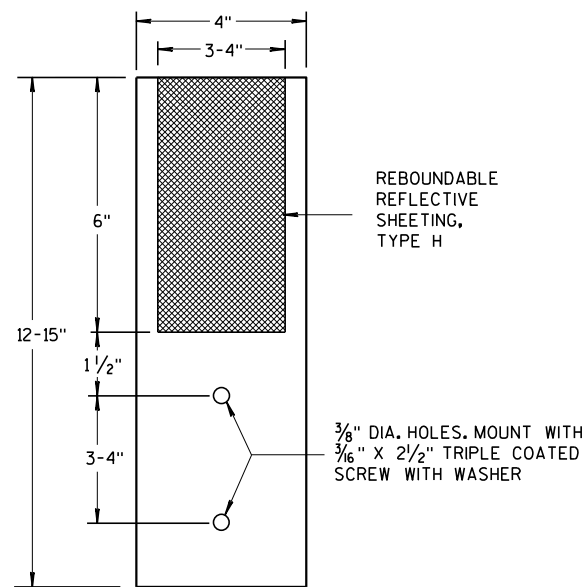


NESTED W BEAM (NW)
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR
CONSTRUCTING NESTED W BEAM (NW)

* USE DOUBLE SIDED WHITE GUARDRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



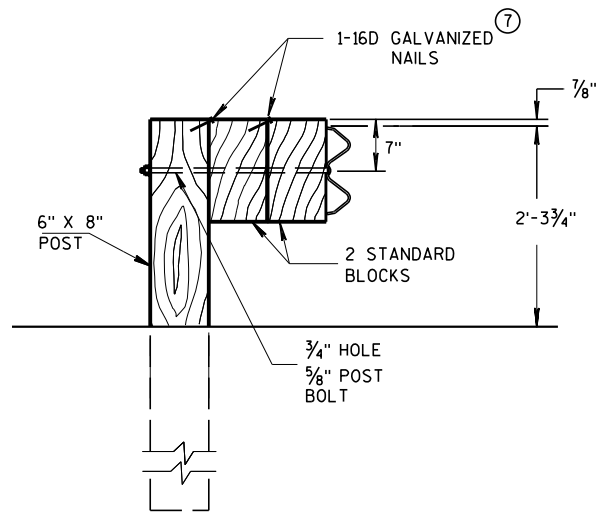
**4" X 12" GUARDRAIL REFLECTOR DETAIL
AND TYPICAL INSTALLATION ***



4" x 12" GUARDRAIL REFLECTOR

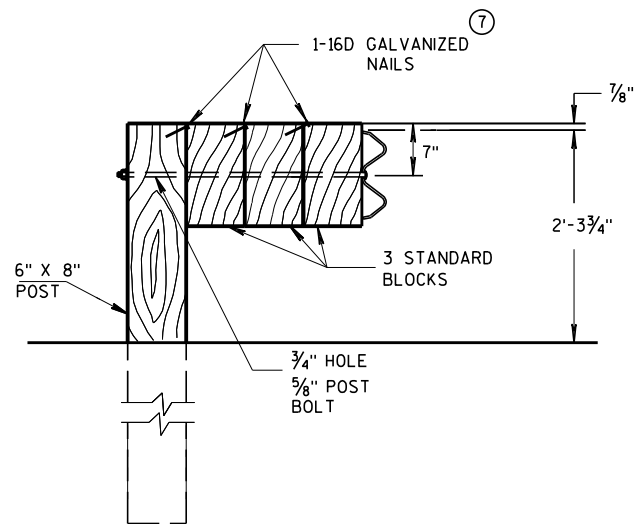
**STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

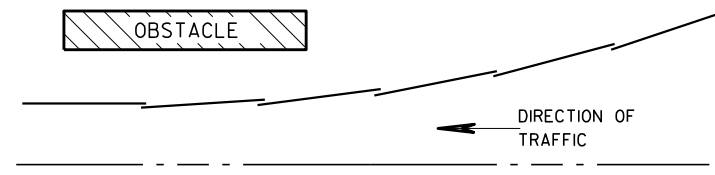


DETAIL FOR TRIPLE BLOCKS

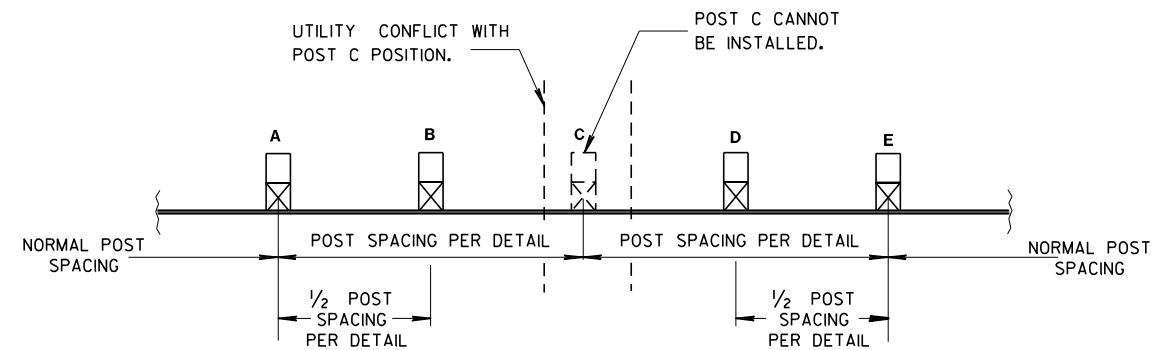
TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



**PLAN VIEW
BEAM LAPPING DETAIL**



**POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION**

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017	/s/ Rodney Taylor
DATE	ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	

BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5 1/2" X 7 1/2" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 1/2" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6 1/2"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

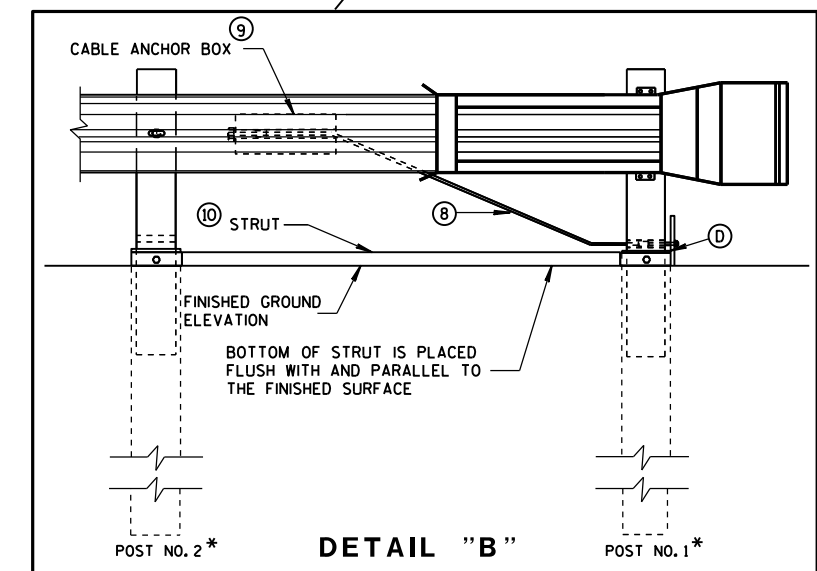
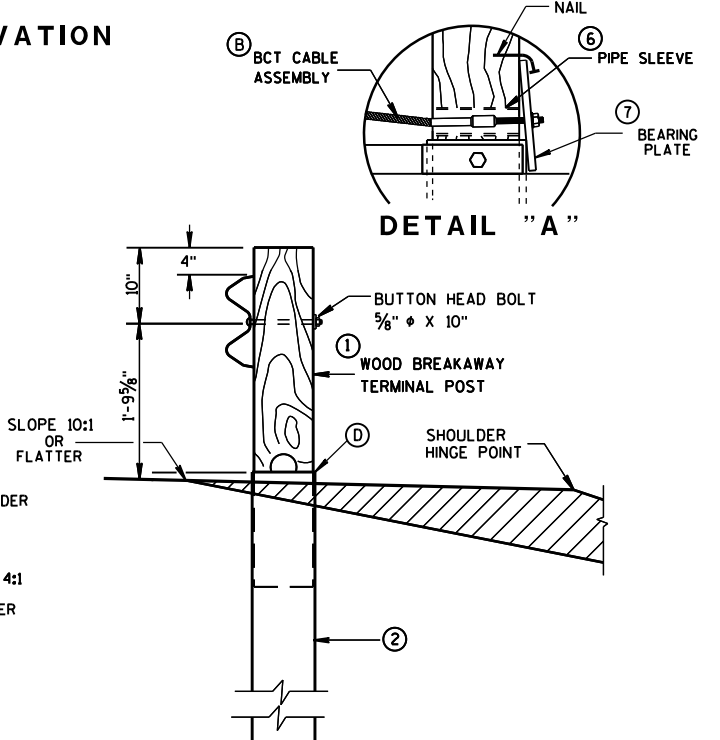
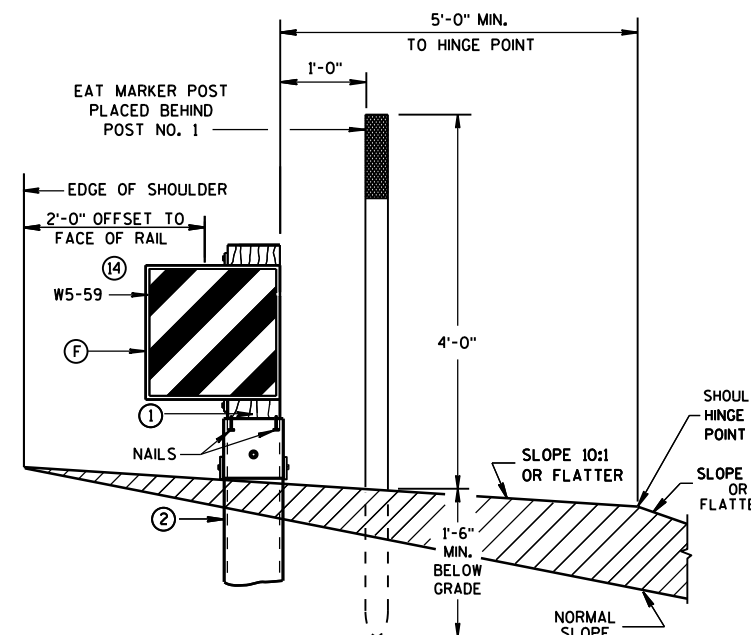
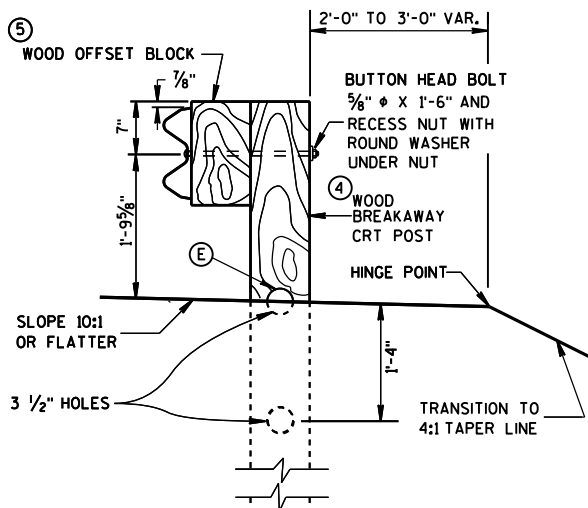
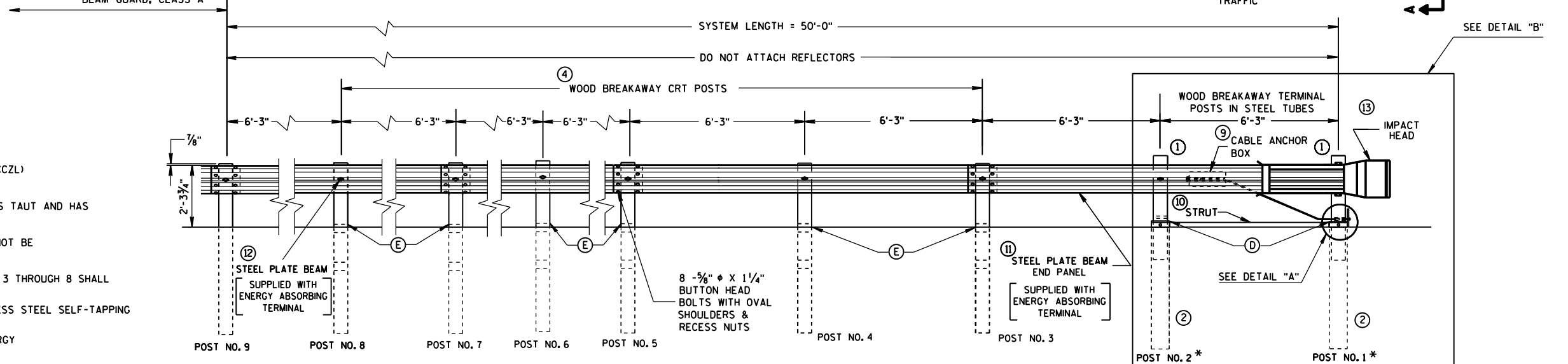
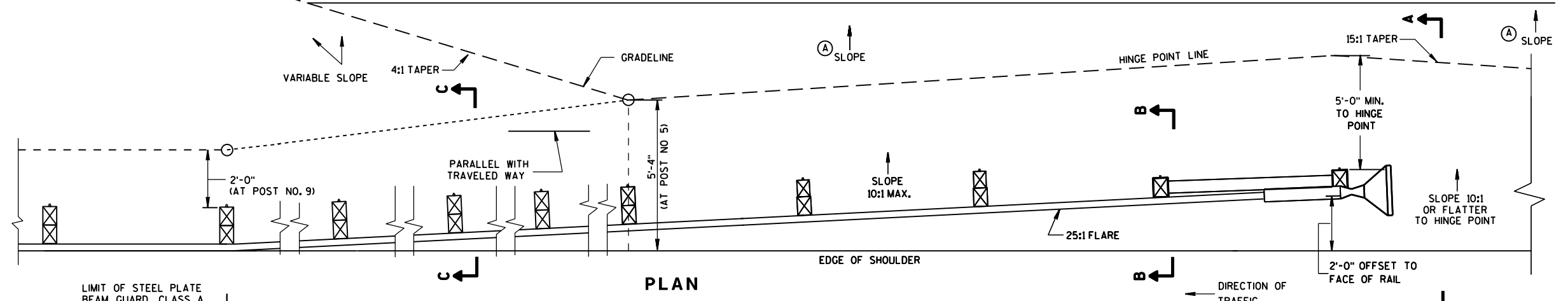
FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (D) THE TOP OF THE STEEL TUBE ON POSTS 1 AND 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE 3/4" ABOVE THE FINISHED GROUND LINE.
- (F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER.

STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

*DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

CLEAR ZONE LIMITS, EITHER AS SHOWN ELSEWHERE IN THE PLANS OR, IF NOT SHOWN ELSEWHERE IN THE PLANS, 15 FEET BEYOND THE HINGE POINT LINE



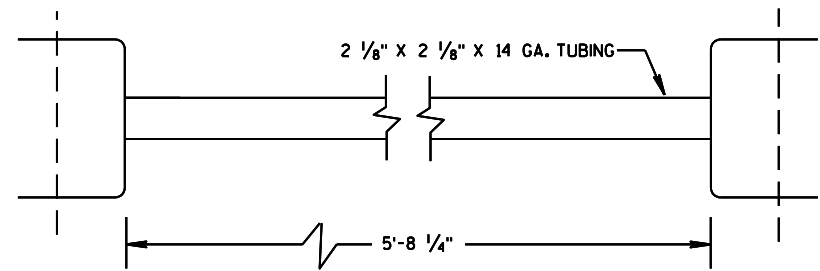
STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

6

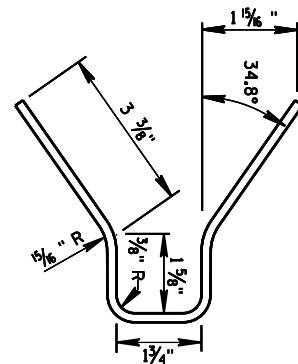
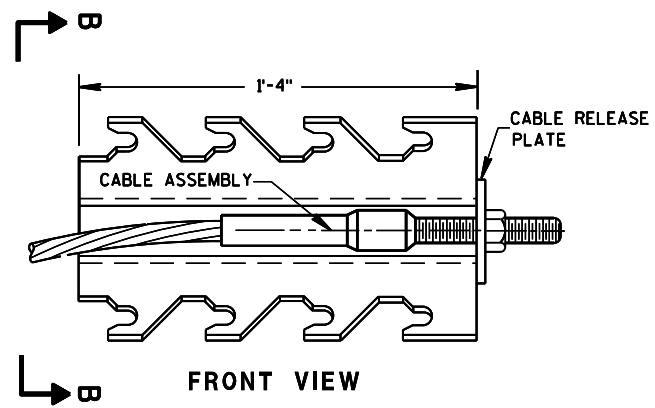
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S.D.D. 14 B 24-9a

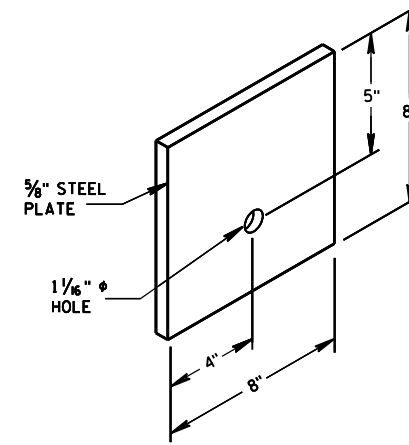
S.D.D. 14 B 24-9a



⑩ STRUT DETAIL



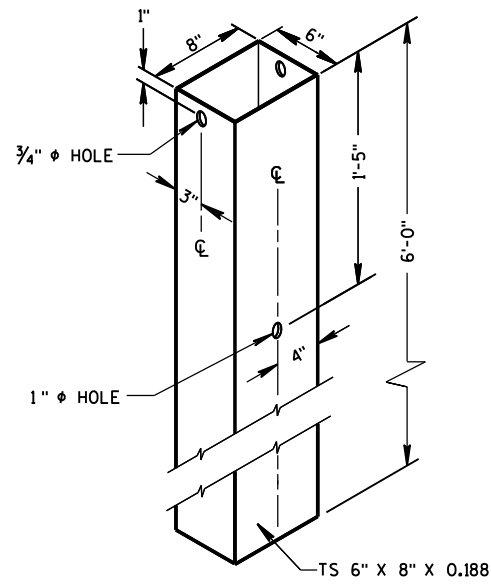
⑨ CABLE ANCHOR BOX



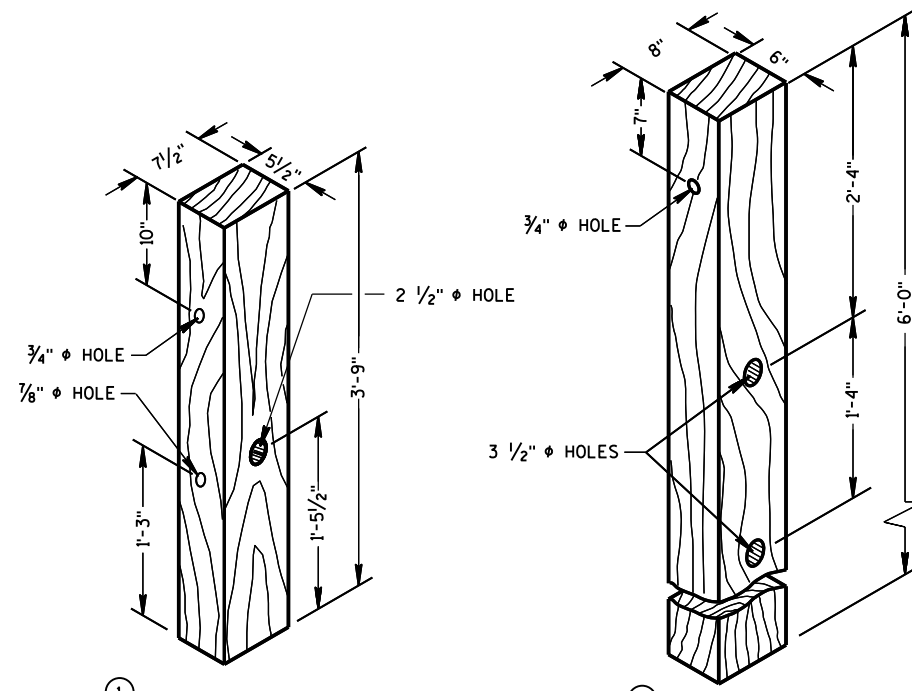
⑦ STEEL BEARING PLATE

6

6



② **72" STEEL TUBE**
(POSTS NO. 1-2)



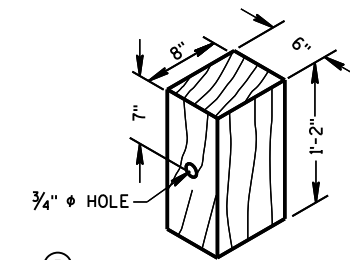
① **TERMINAL POST**

④ **CRT POST**
(POSTS NO'S 5-8)

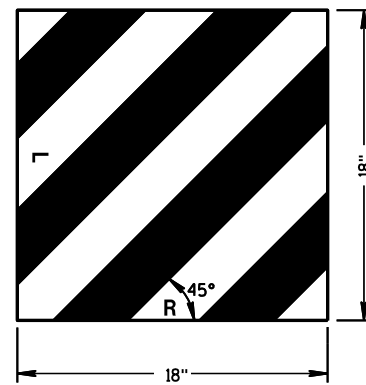
WOOD BREAKAWAY POSTS

GENERAL NOTES

WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

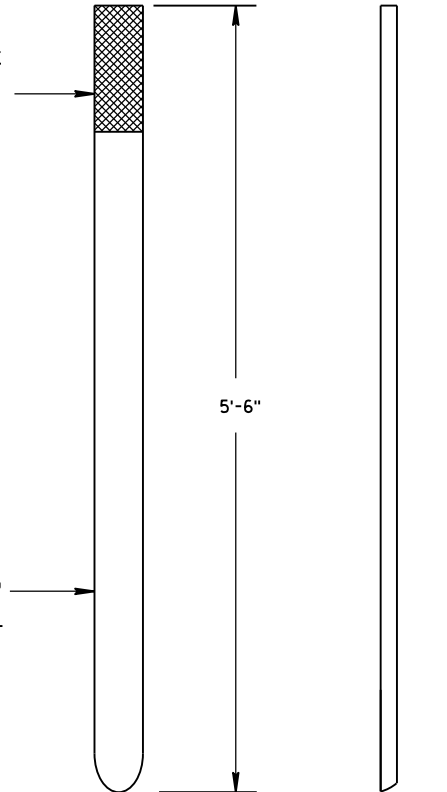


⑤ **WOOD OFFSET BLOCK**
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



⑭ **REFLECTIVE SHEETING DETAILS**

TYPE H
YELLOW REFLECTIVE
SHEETING 3" X 9".
SEE STANDARD
SPECIFICATION 637.



E.A.T. MARKER
POST (YELLOW)
SEE APPROVED
PRODUCTS LIST

FRONT VIEW SIDE VIEW

E.A.T. MARKER POST

**STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.




ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

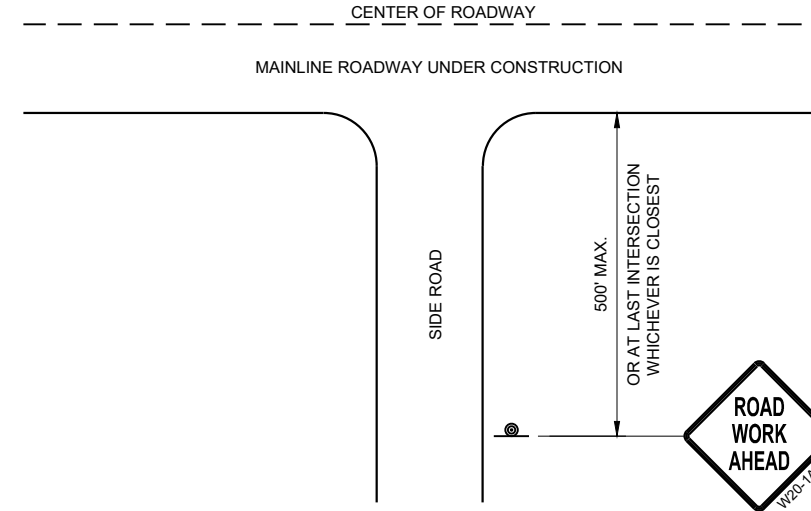
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

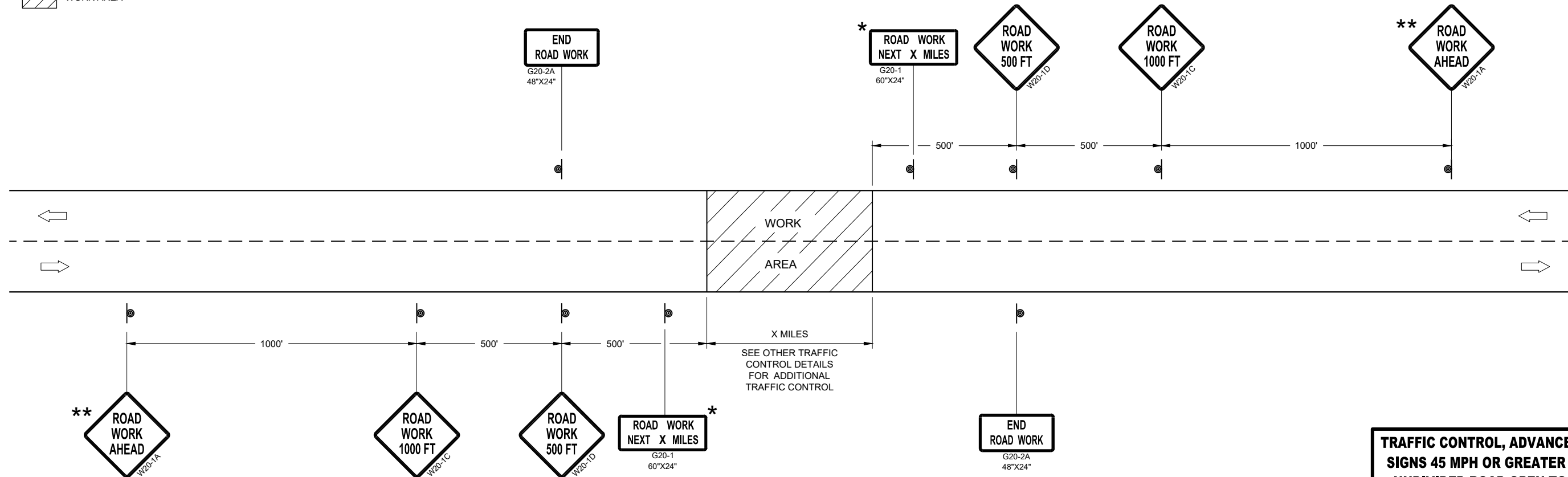
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

**TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____ /S/ Andrew Heidtke
DATE July 2018 WORK ZONE ENGINEER

FHWA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

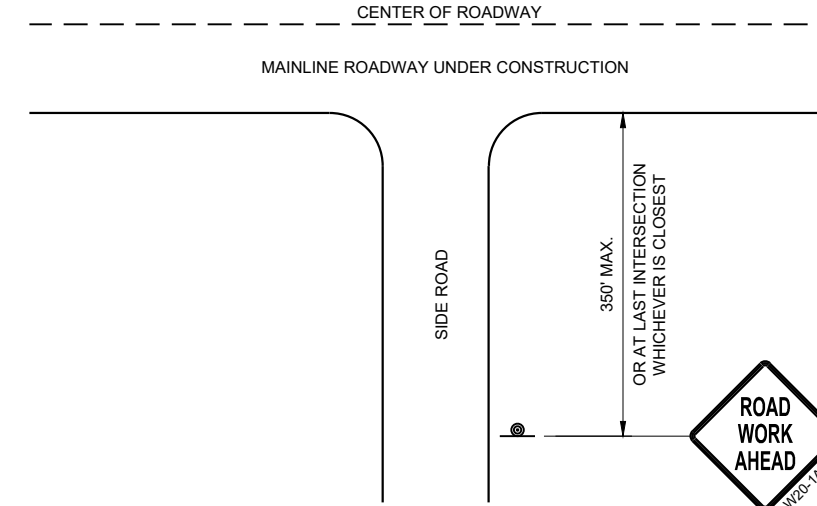
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

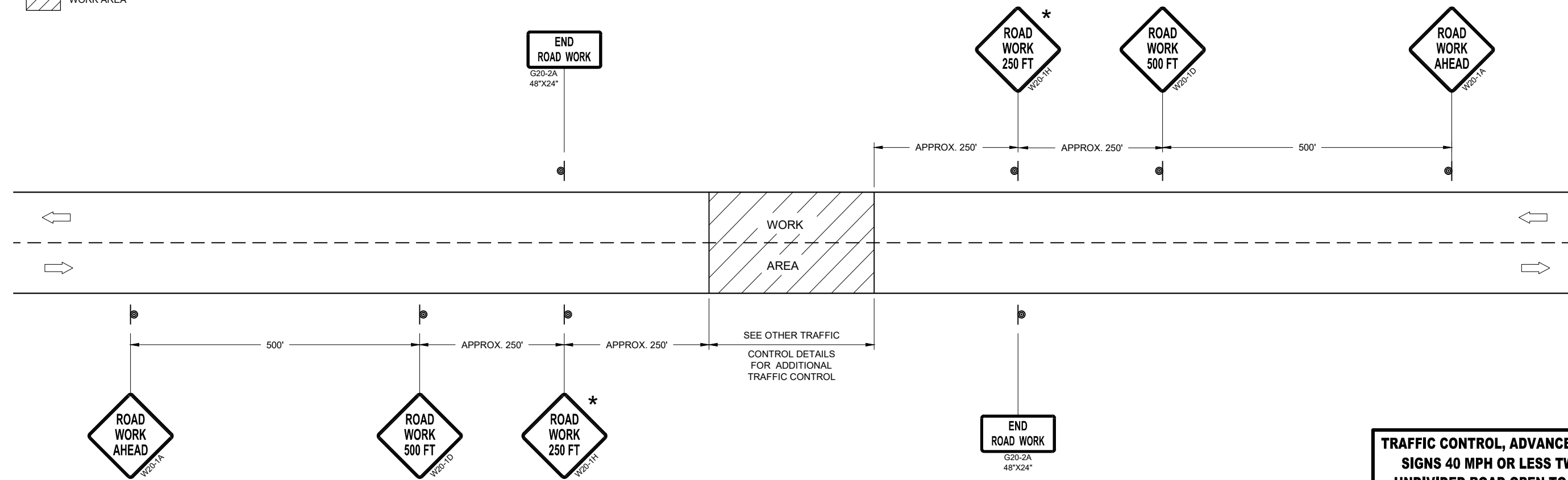
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**

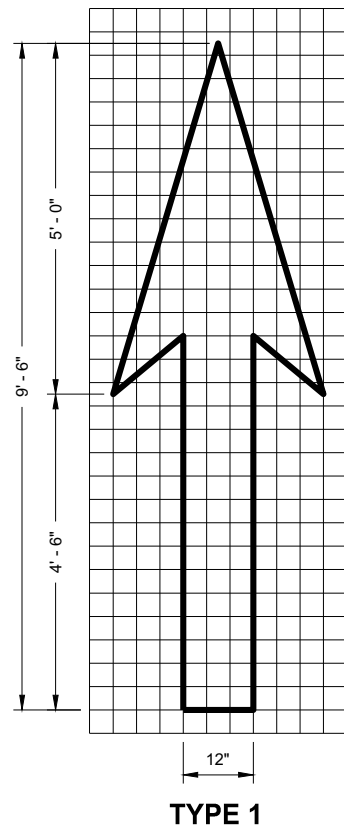
LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

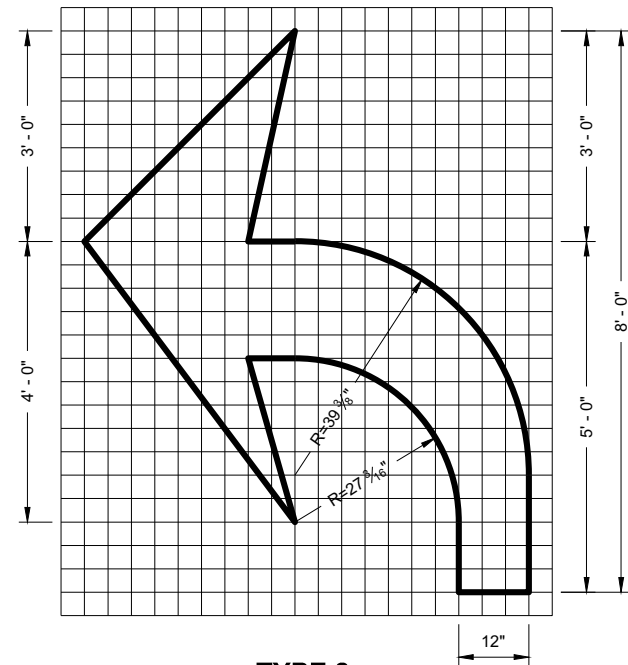


TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

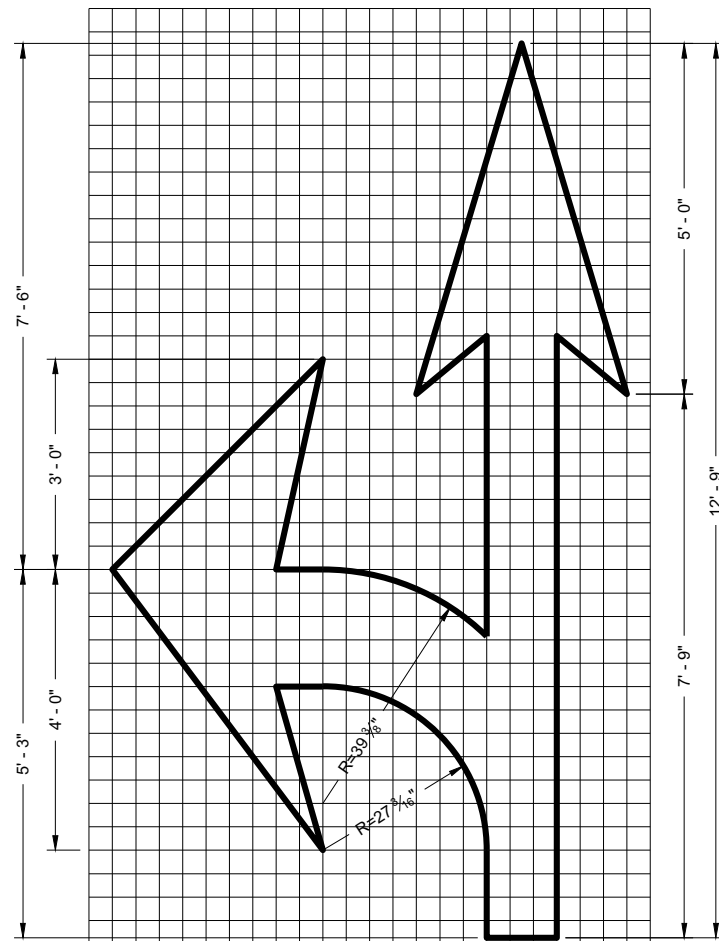
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED July 2018 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



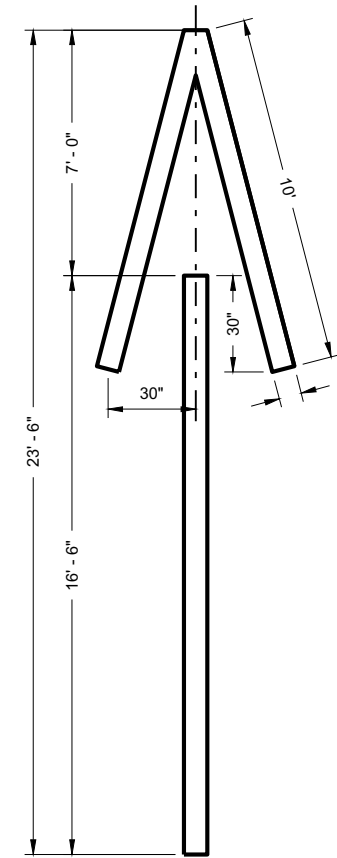
TYPE 1



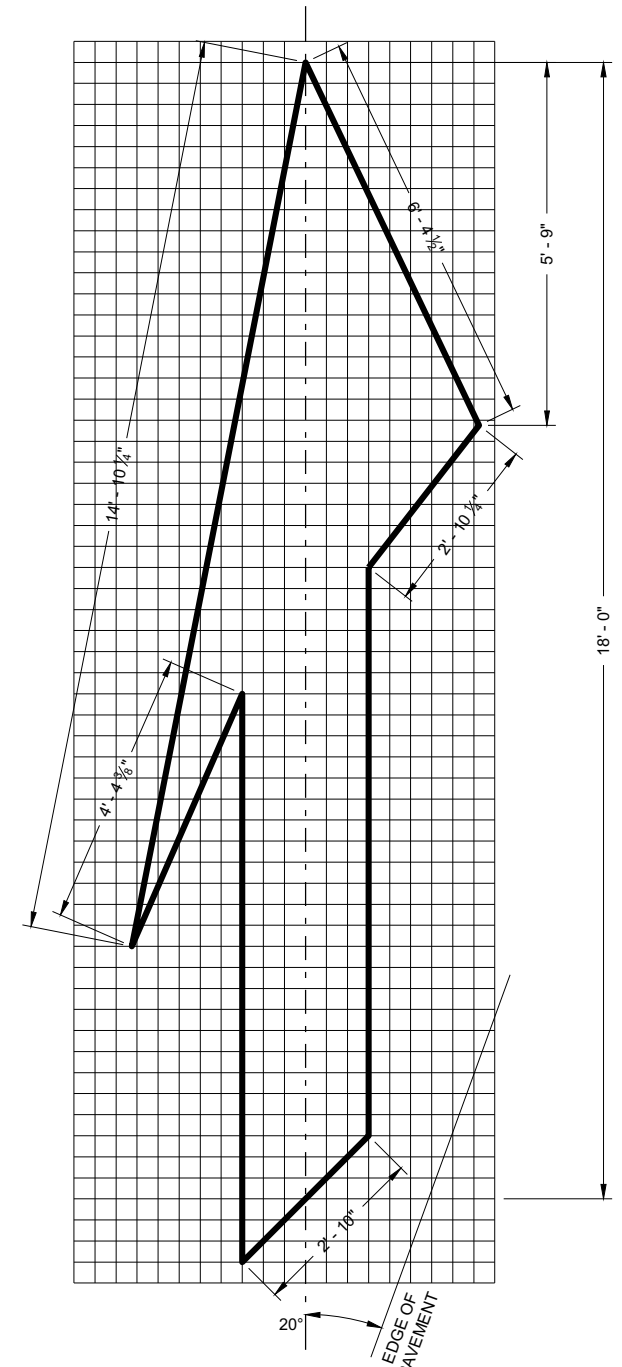
TYPE 2



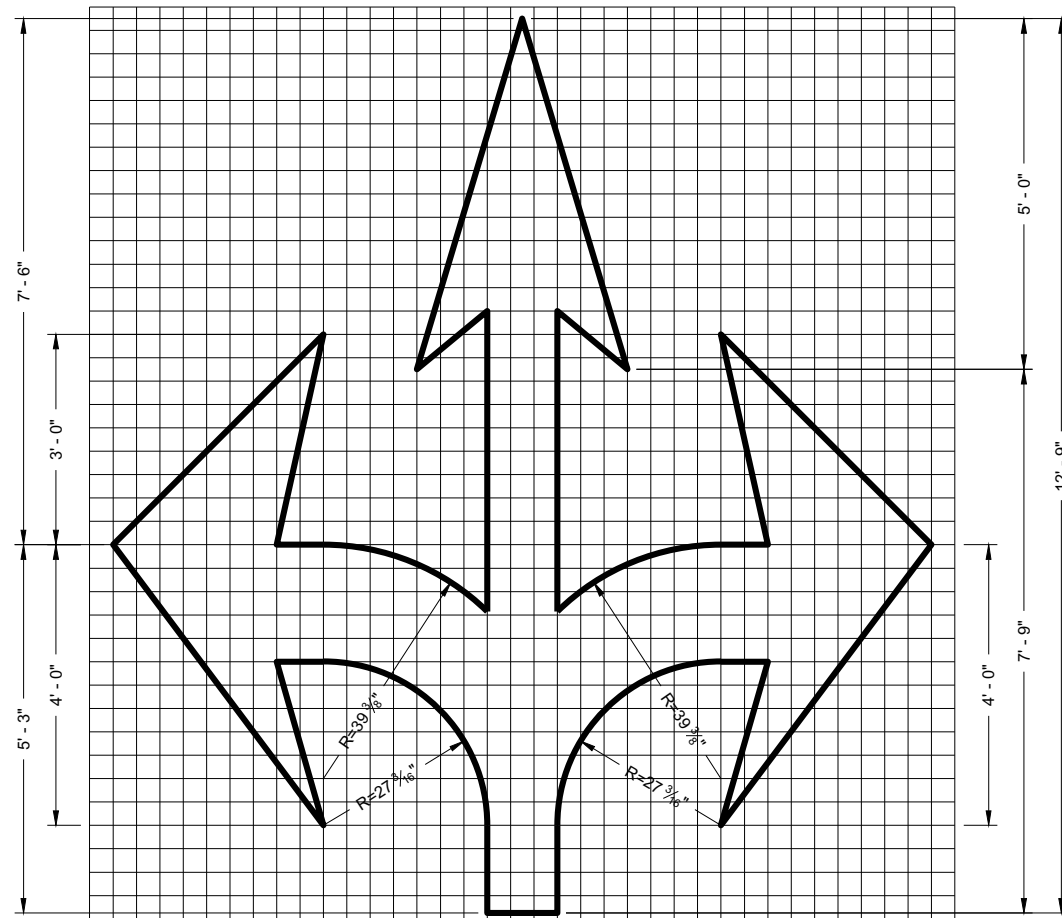
TYPE 3



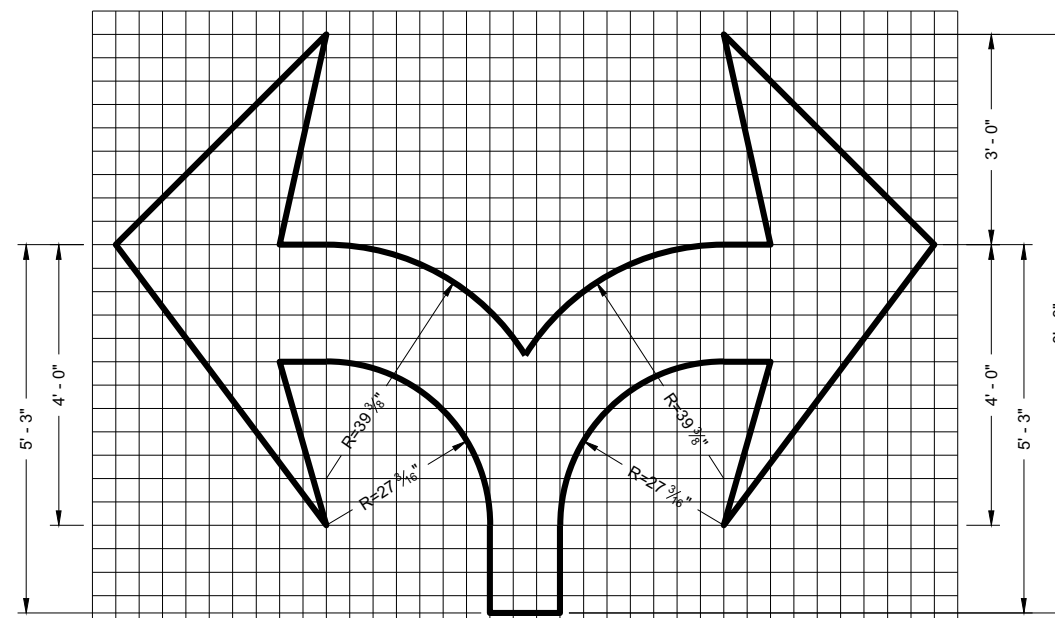
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

November 2019

DATE

FHWA




/s/ Matthew Rauch
STATE SIGNING AND MARKING
ENGINEER

GENERAL NOTES

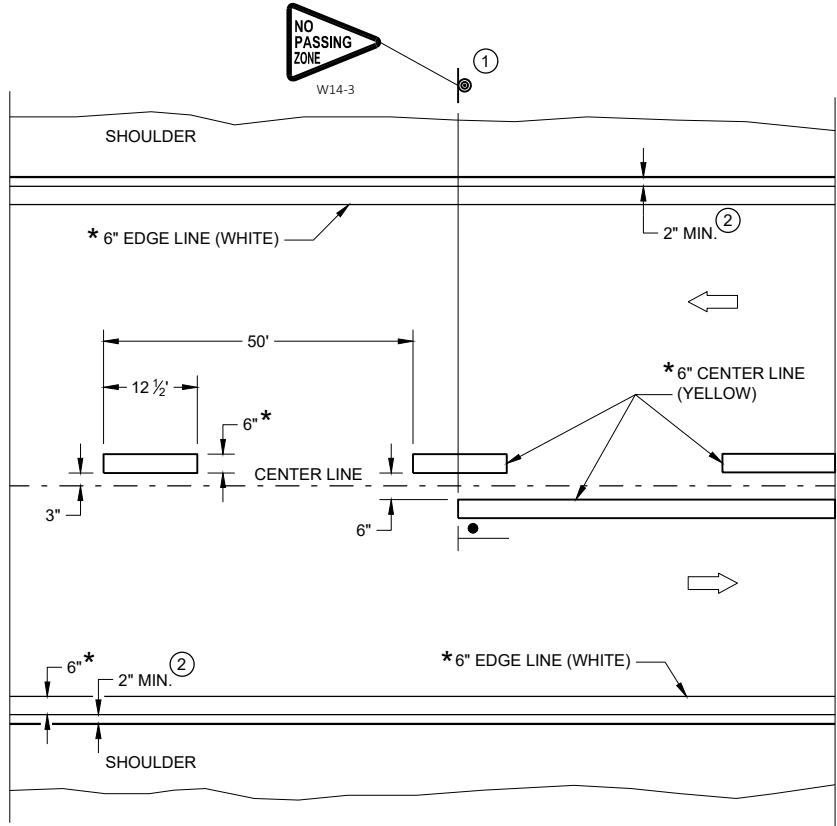
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

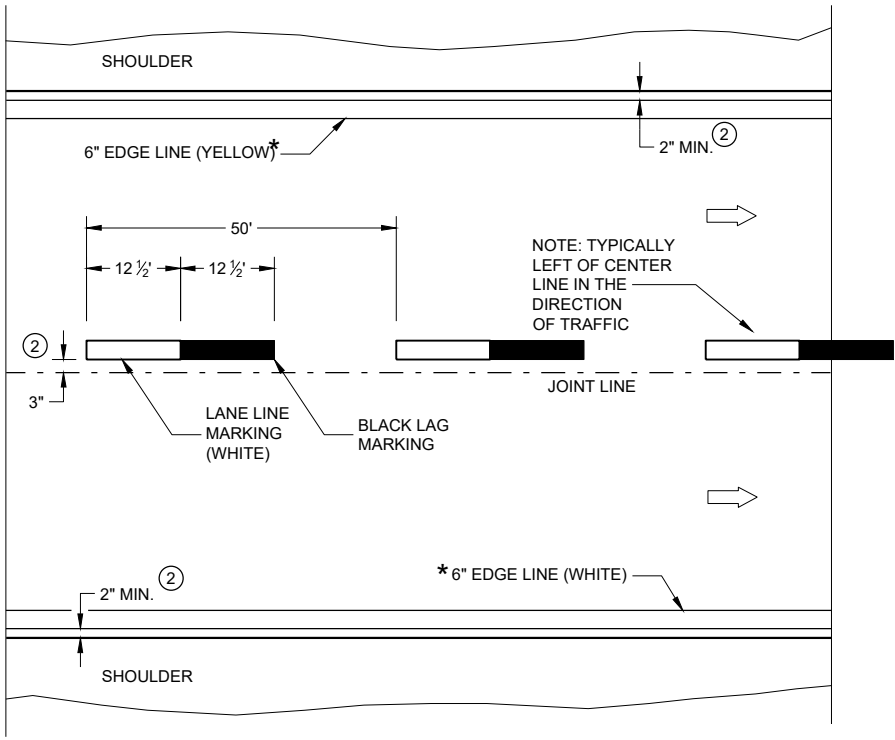
LEGEND

-  "T" MARKING
-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

6

SDD 15C08-23a

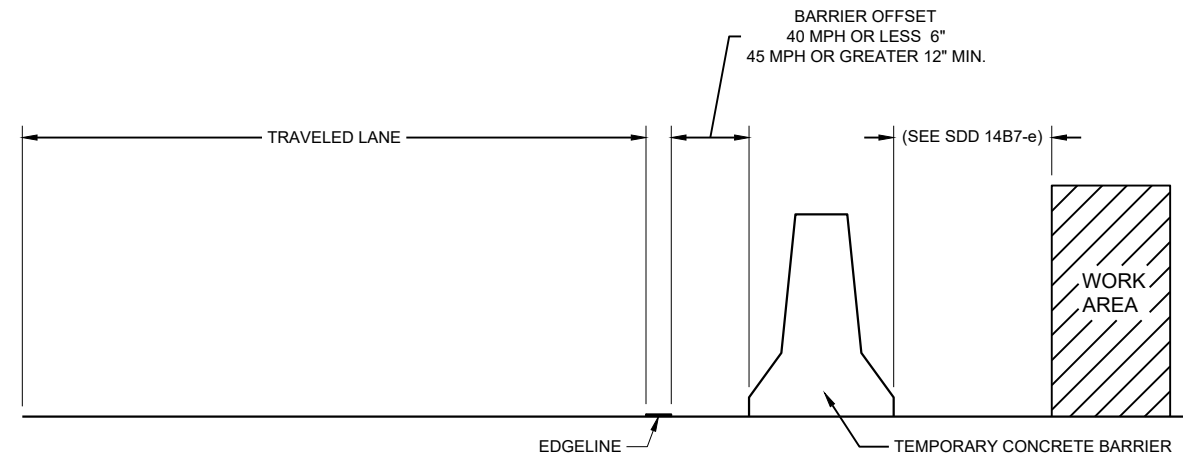
SDD 15C08-23a

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2023 /S/ Jeannie Silver
STATEWIDE SIGNING AND MARKING ENGINEER

FHWA



TEMPORARY BARRIER OFFSET FROM EDGELINE

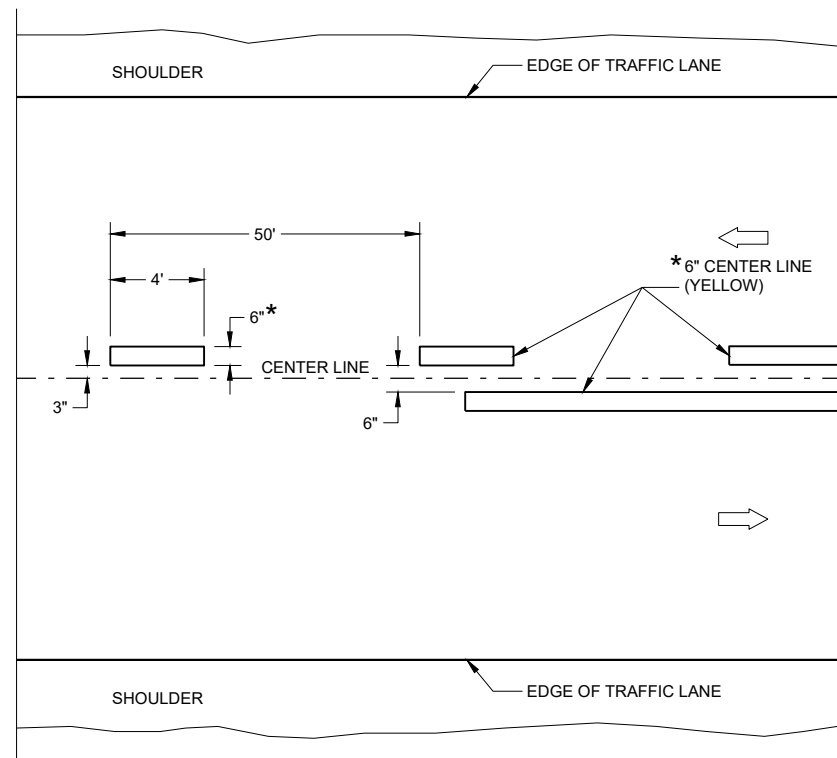
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

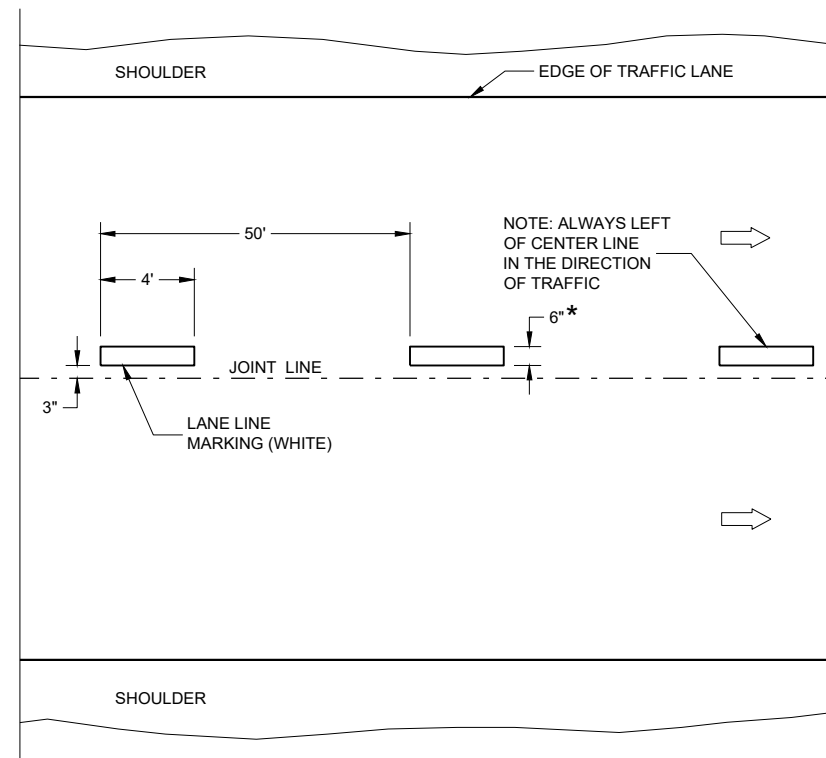
LEGEND

➡ DIRECTION OF TRAFFIC

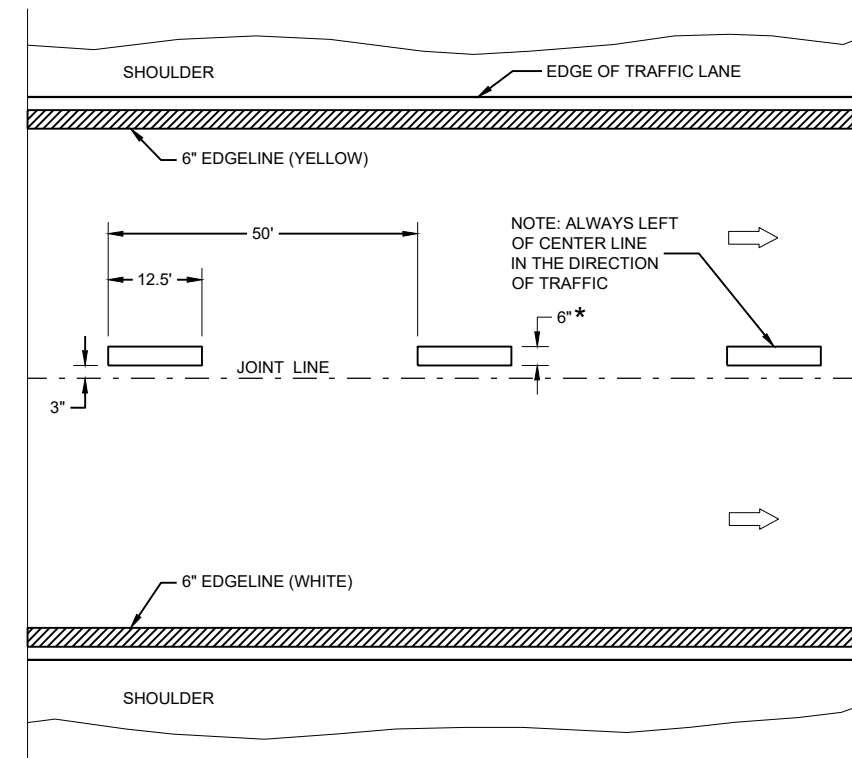
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Jeannie Silver
DATE STATEWIDE SIGNING AND MARKING ENGINEER

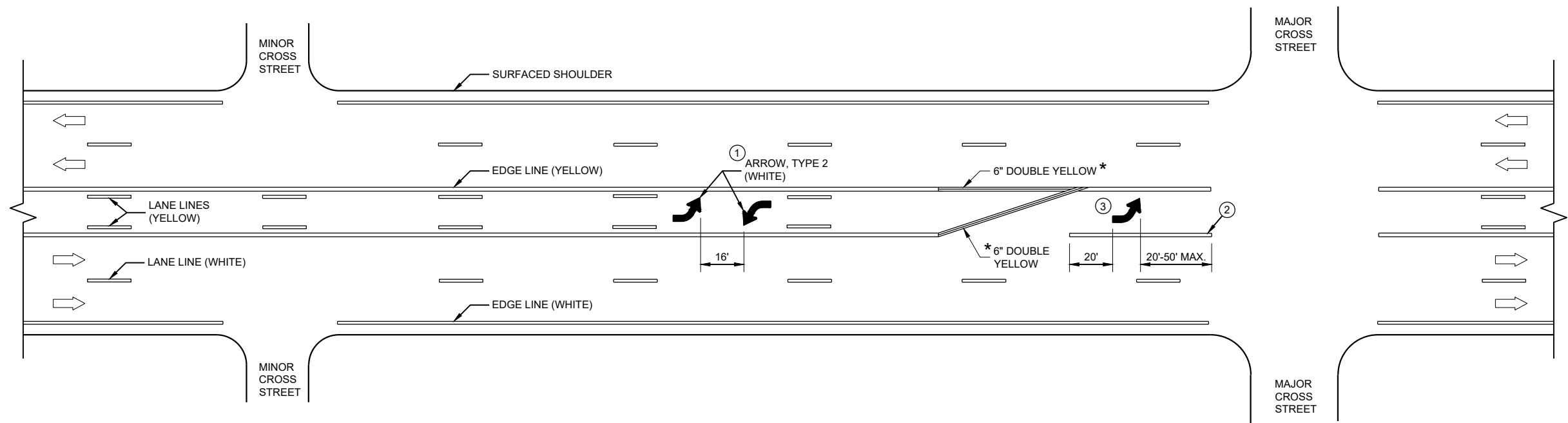
FHWA

GENERAL NOTES

- ① A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ② 10" WHITE
- ③ TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

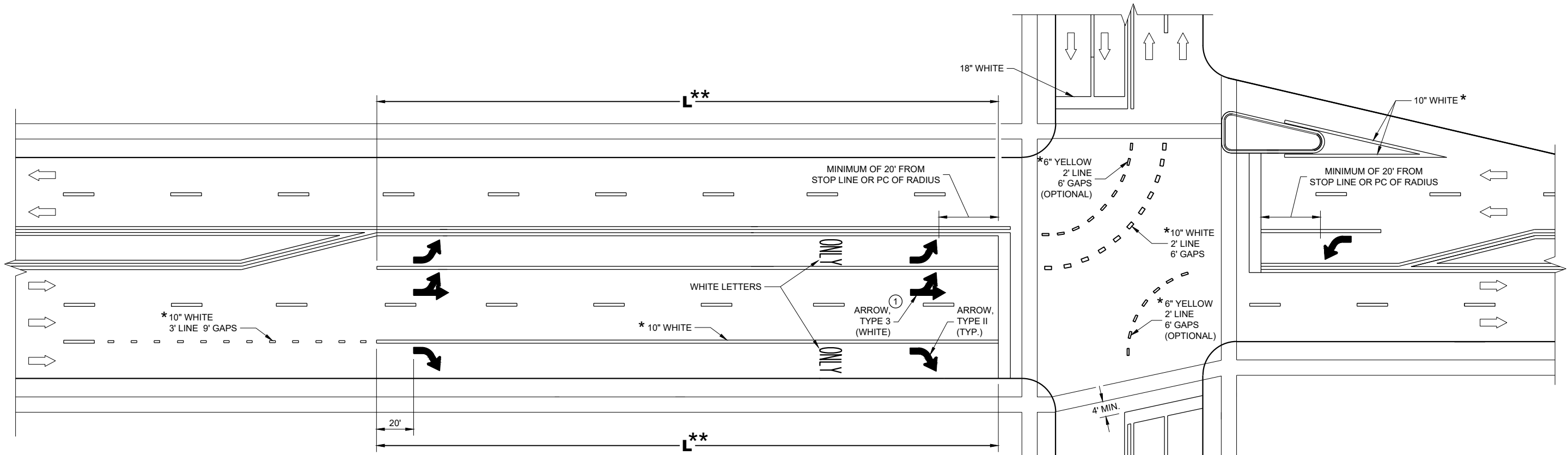
➡ DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



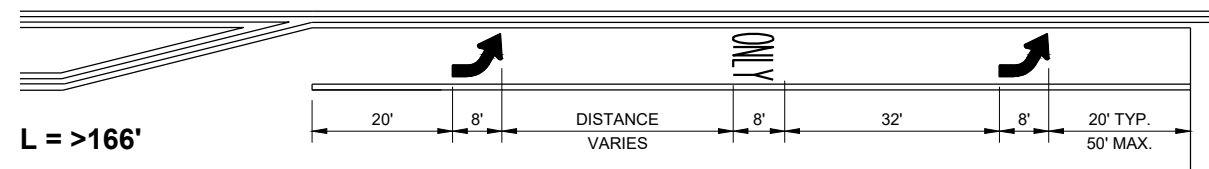
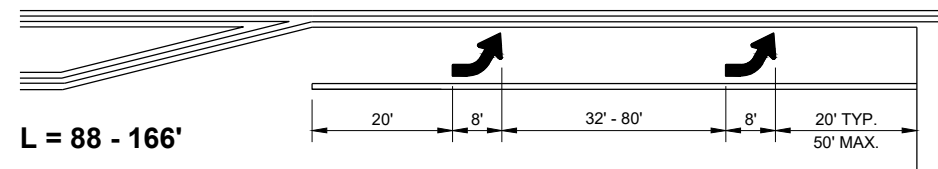
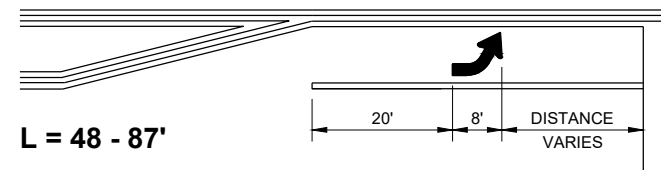
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



TURN LANE OPTIONS

LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

GENERAL NOTES

① QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

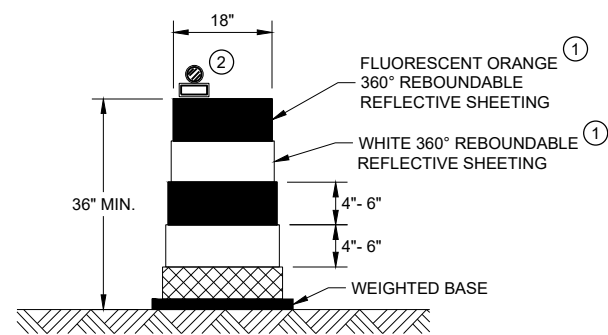
➡ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

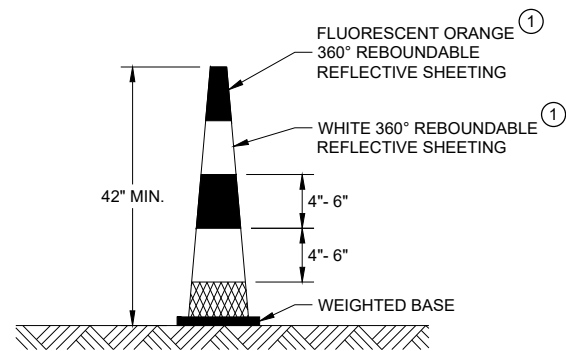
**PAVEMENT MARKING
(TURN LANES)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



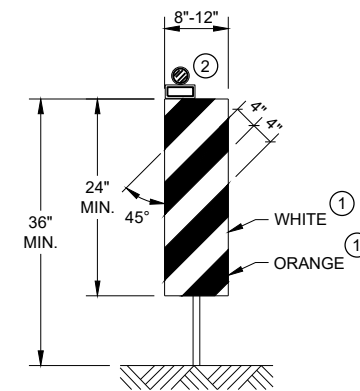
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"

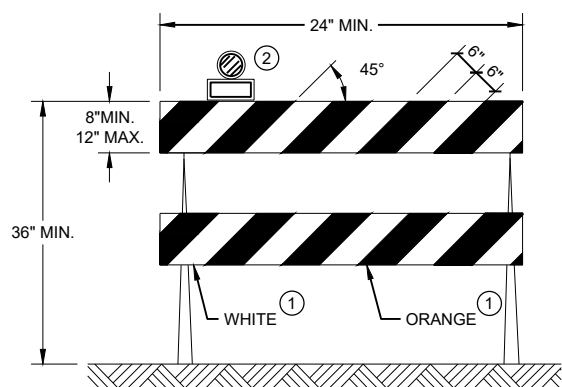


VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.

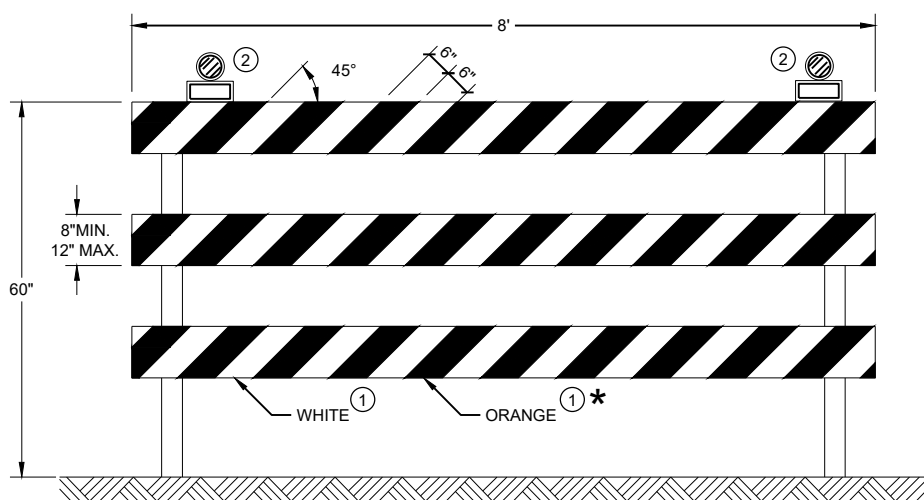
GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.






* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 November 2022 /S/ Andrew Heidtke
 DATE WORK ZONE ENGINEER
 FHWA

LEGEND

-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND LOCATION OF ALL FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

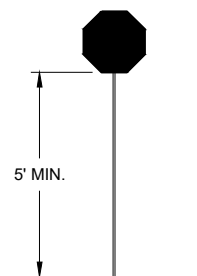
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



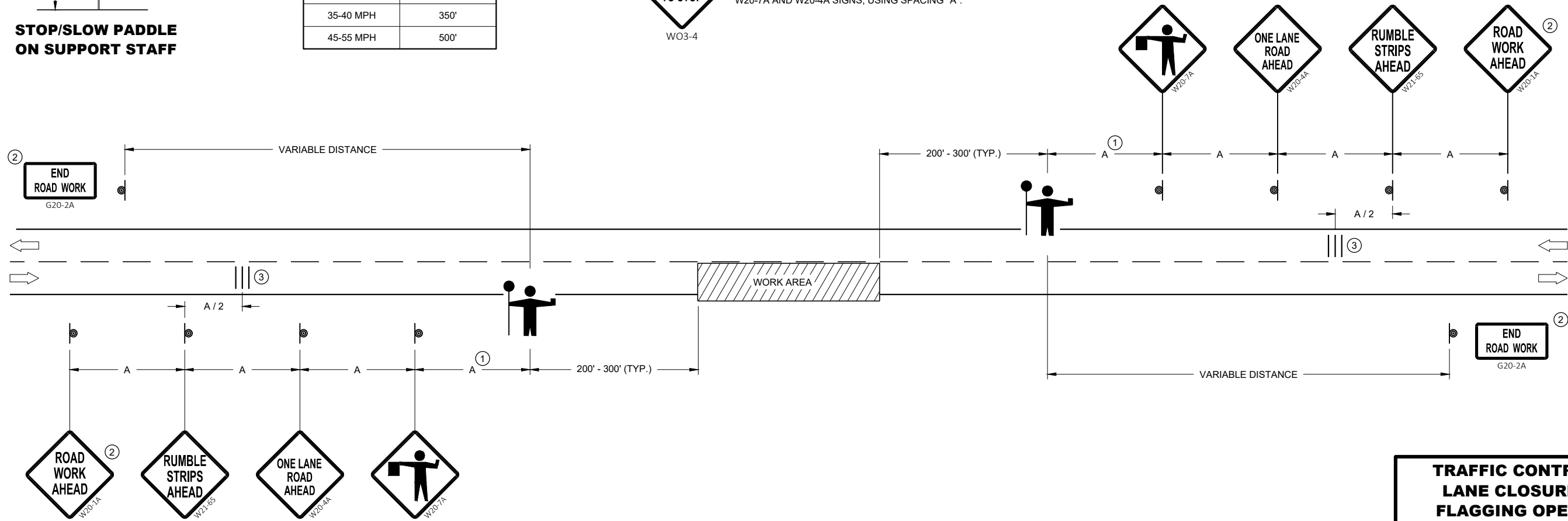
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



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SDD 15C12 - 09a

SDD 15C12 - 09a







TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____ /S/ Andrew Heidtke
DATE May 2022 WORK ZONE ENGINEER

FHWA

GENERAL NOTES

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL CONE 42-INCH
-  TRAFFIC CONTROL DRUM
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  **AFAD** AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND LOCATION OF ALL FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

IF THE AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) STOPS WORKING, FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

- ① SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- ② IF FLAGGERS ARE PHYSICALLY NEEDED TO FLAG, REPLACE WO3-4 SIGNS WITH W20-7A SIGNS.

TEMPORARY PORTABLE RUMBLE STRIPS

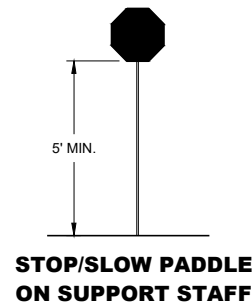
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

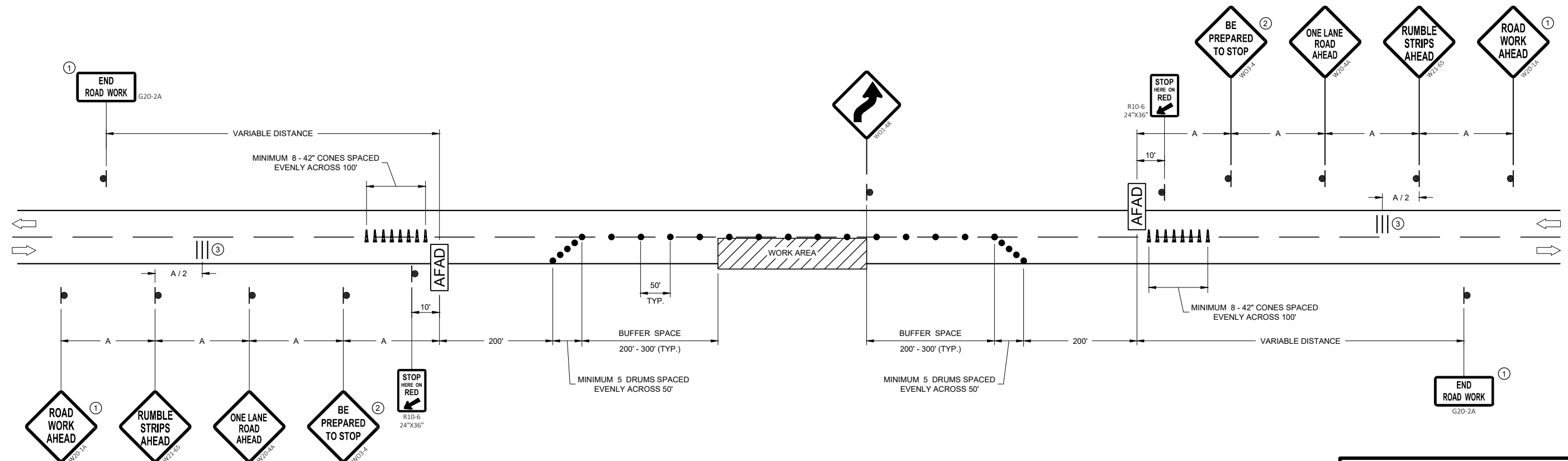
DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSELY AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER.



SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA





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SDD 15C12 - 09b

SDD 15C12 - 09b

LEGEND

- V1 LEAD VEHICLE
- V2 MARKING VEHICLE
- V3 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC
-  FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

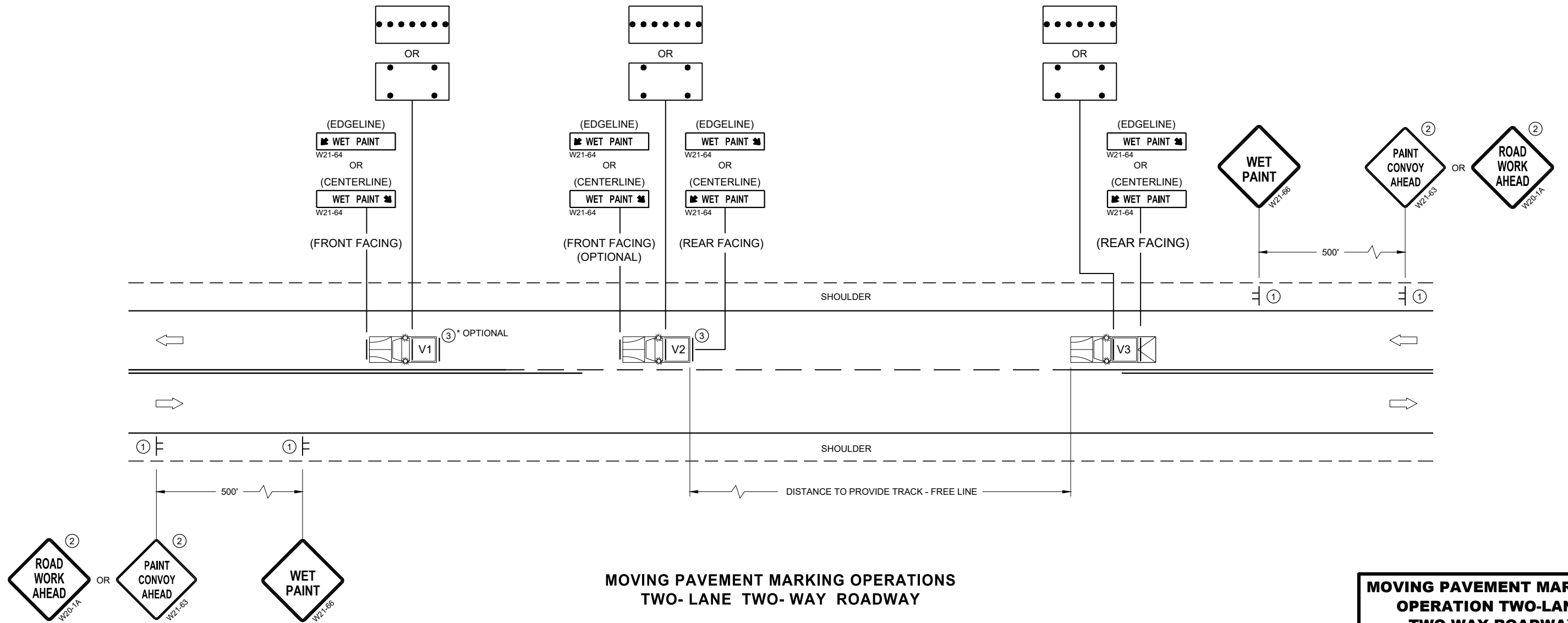
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING.

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.
- ③ V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.

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**MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY**

SDD 15C19-08a

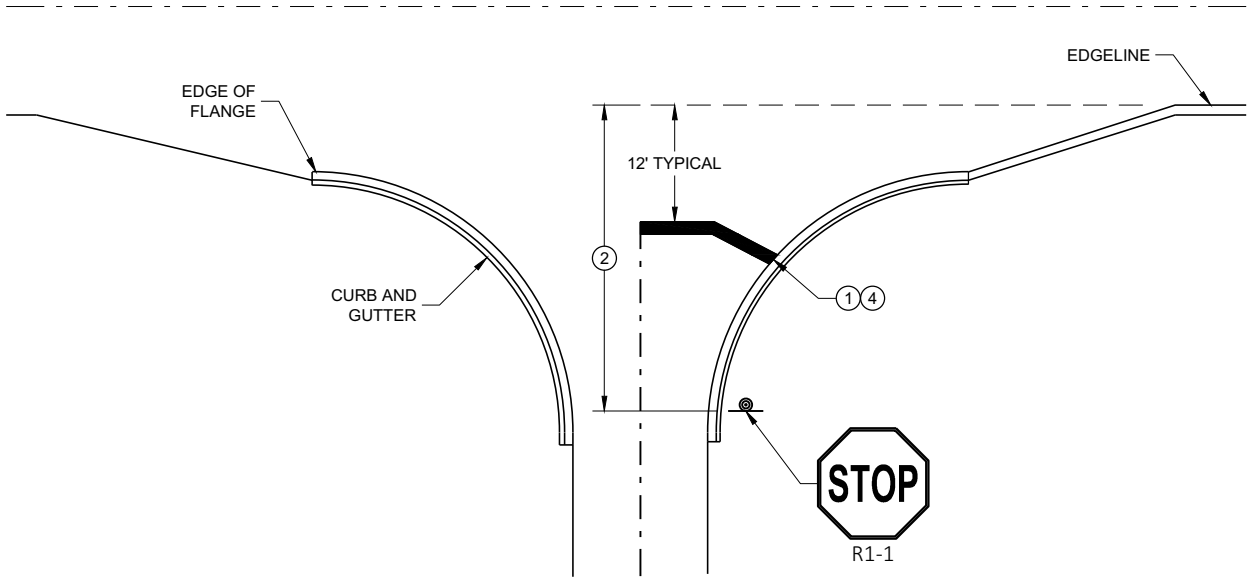
SDD 15C19-08a

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

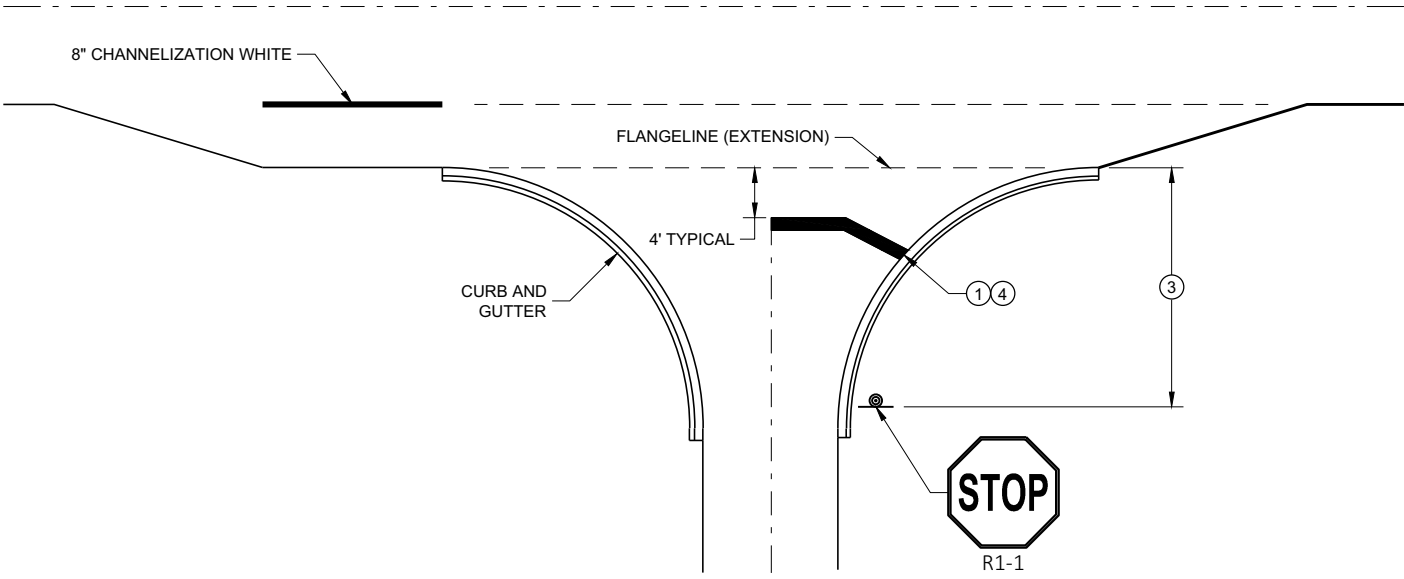
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

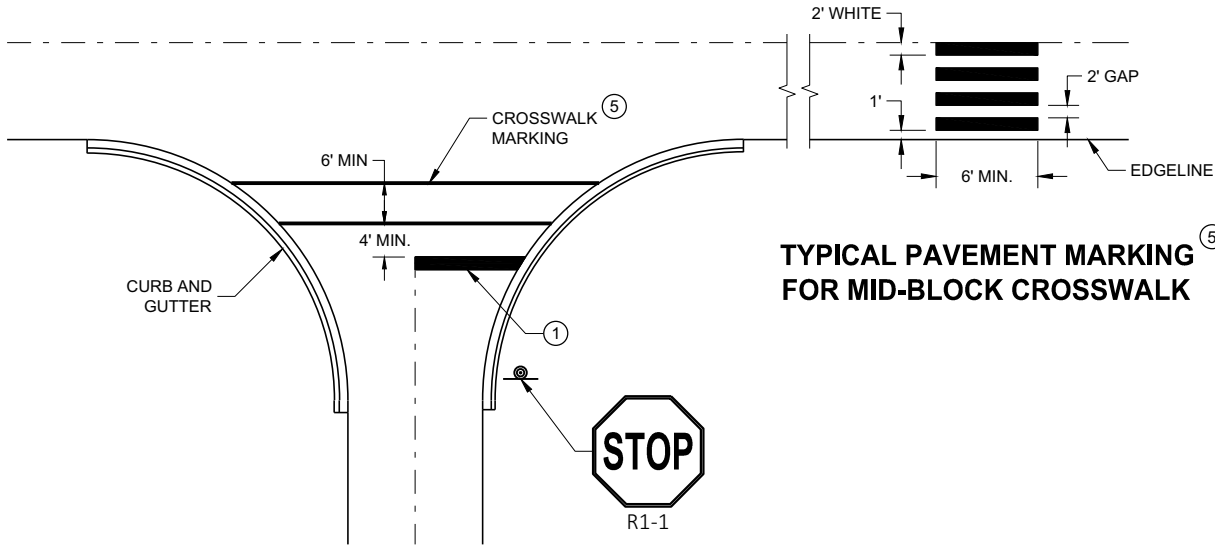
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

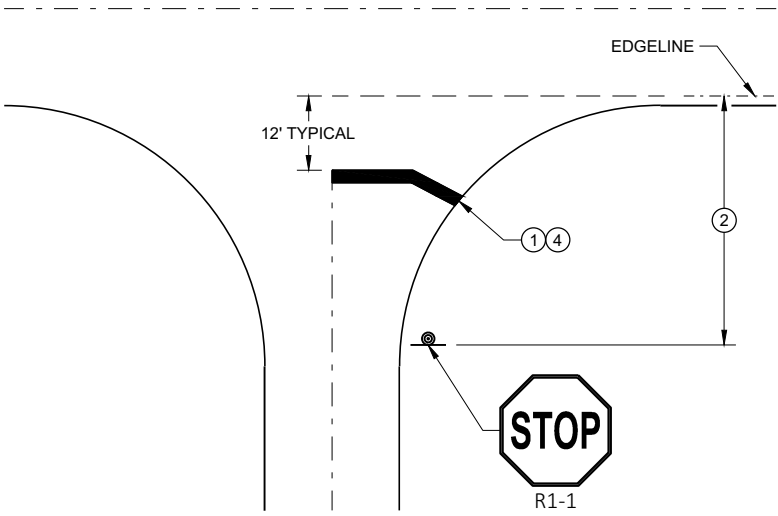


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING

TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK



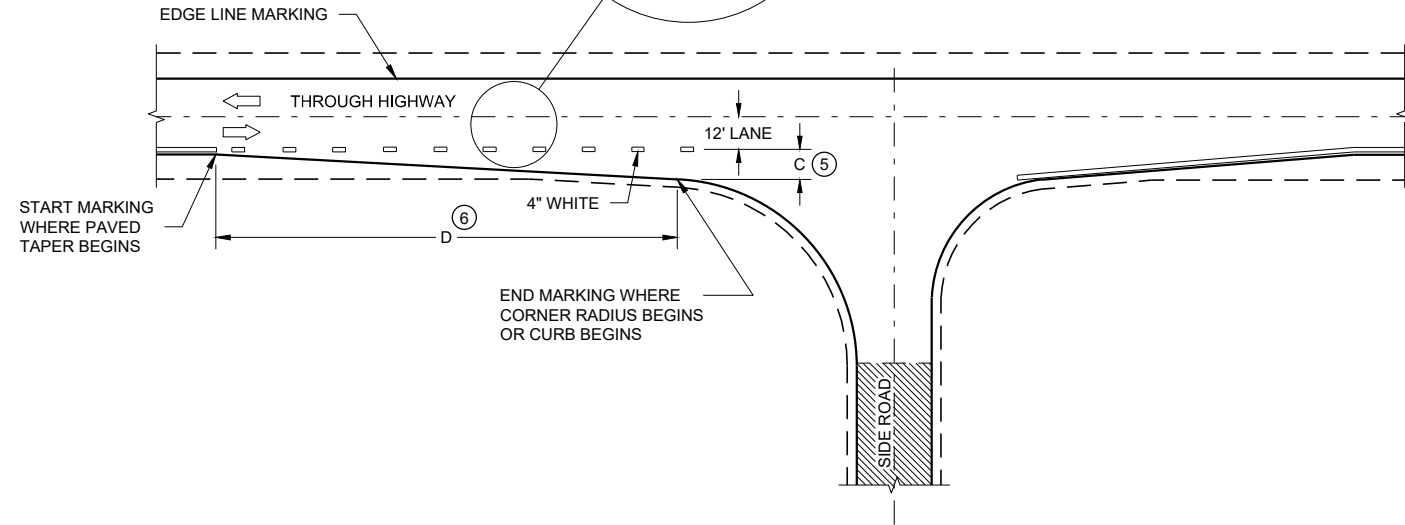
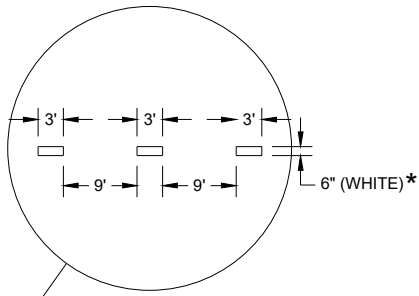
TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING ENGINEER

FHWA



MINOR INTERSECTION

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

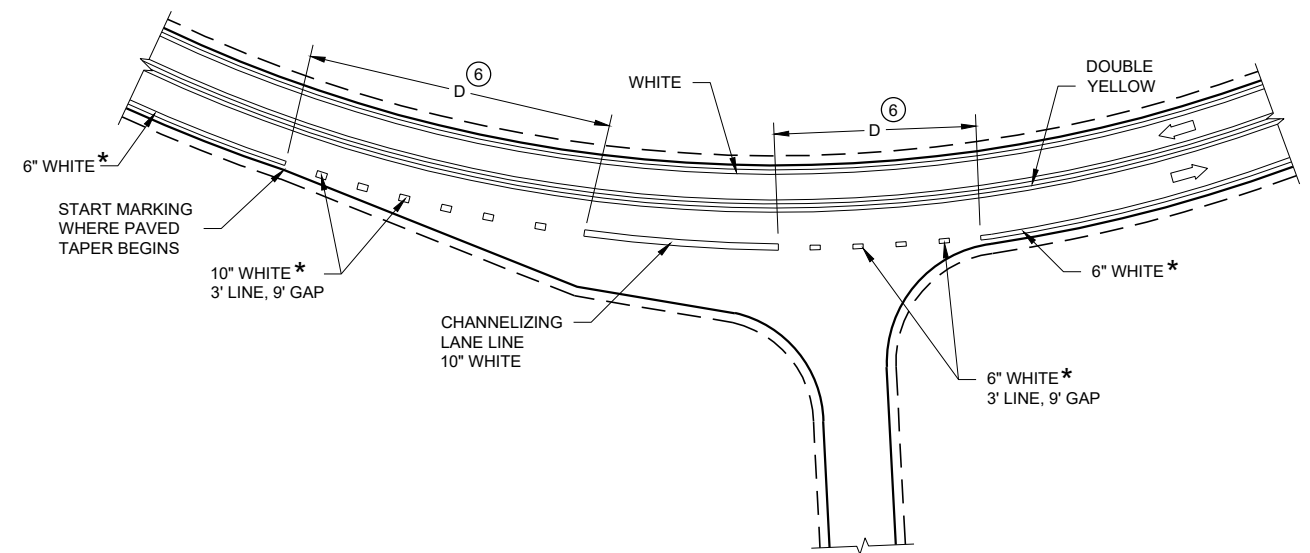
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

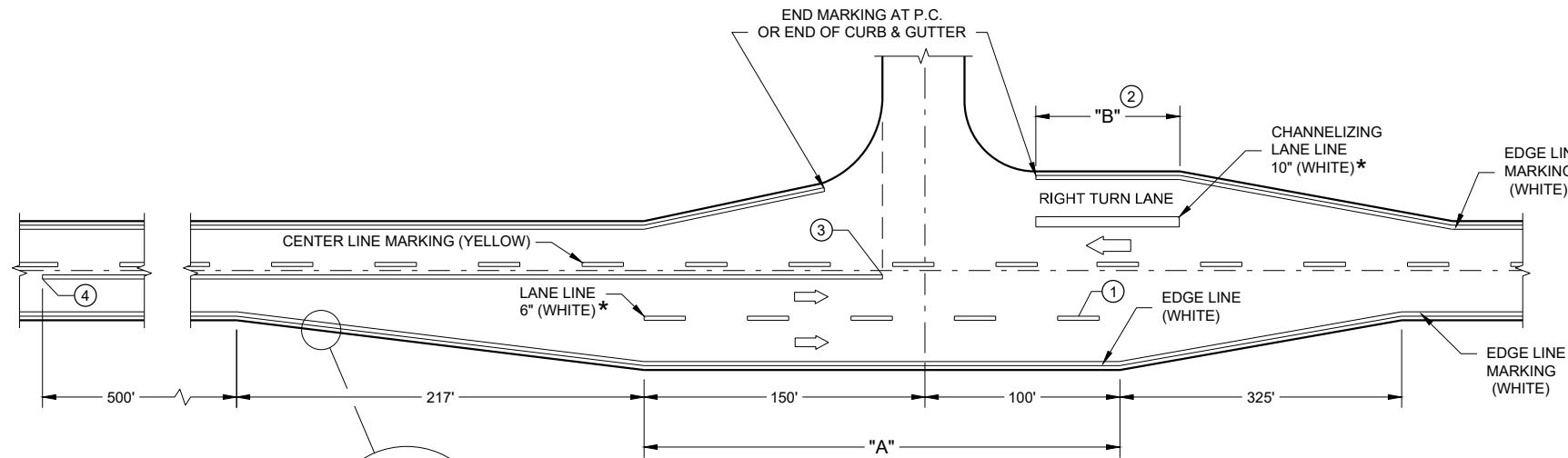
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

➡ DIRECTION OF TRAVEL

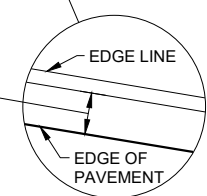


INTERSECTION ON OUTSIDE OF CURVE



**MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)**





BYPASS LANE PAVED SHOULDER WIDTH (AS SHOWN ELSEWHERE IN PLANS) - PLUS 2 INCHES



**PAVEMENT MARKING
(INTERSECTIONS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DIRECTION OF TRAFFIC
-  WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

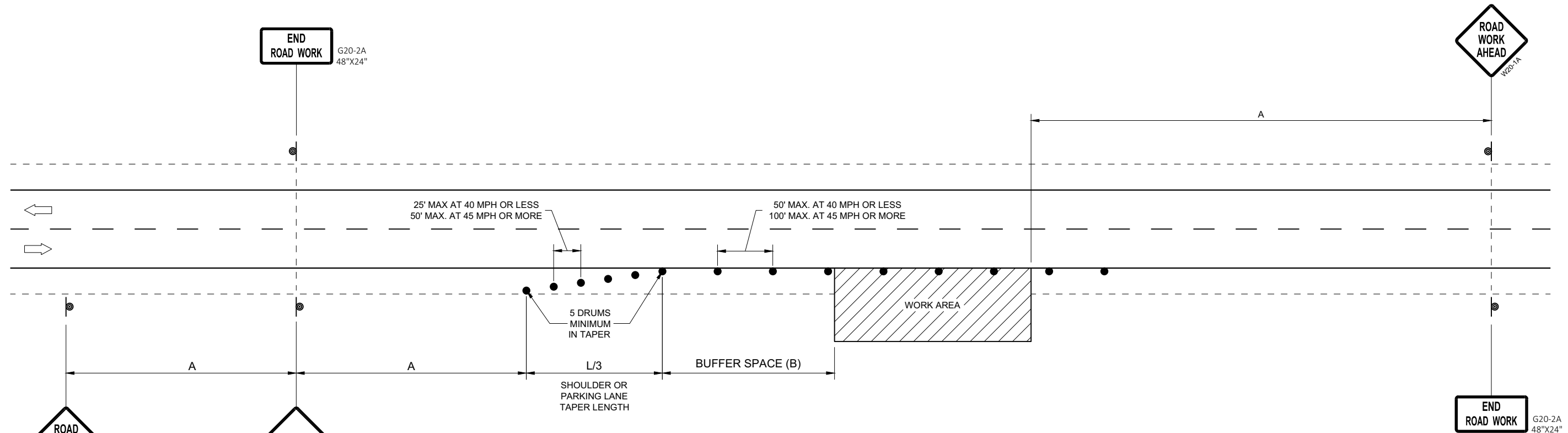
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

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POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

OR
IF TRAFFIC CONTROL DEVICES
ENCROACH ONTO TRAVELED WAY, USE



TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

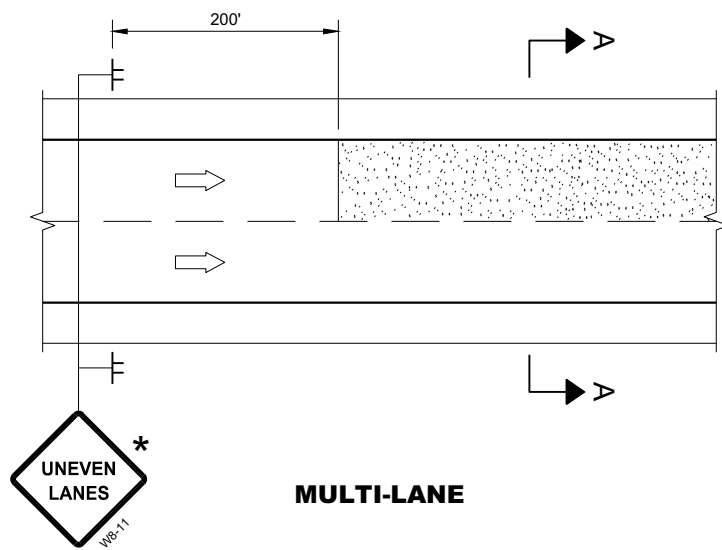
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 DATE /S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

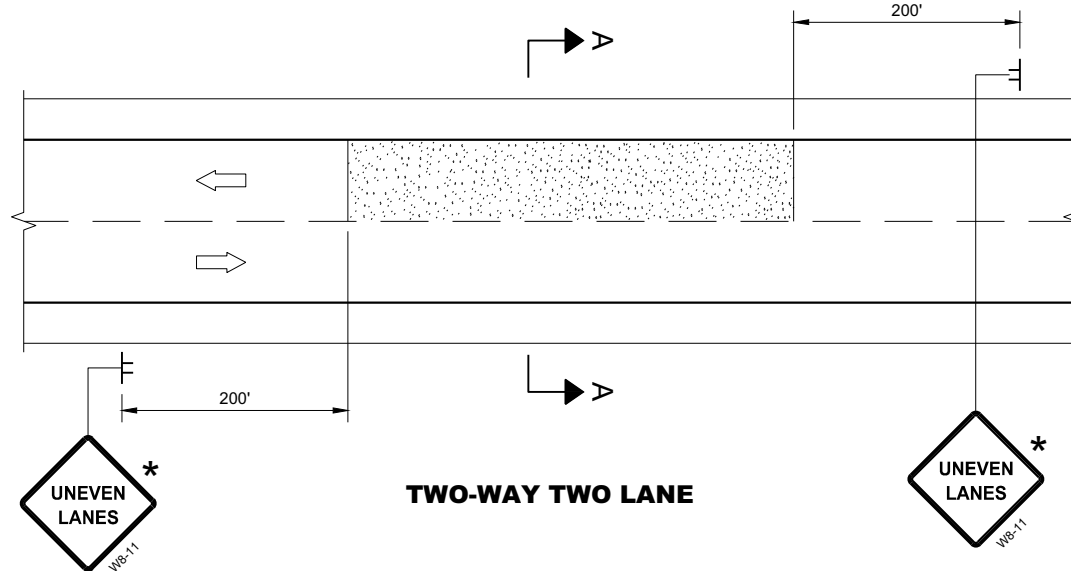
FHWA

SDD 15D28 - 04

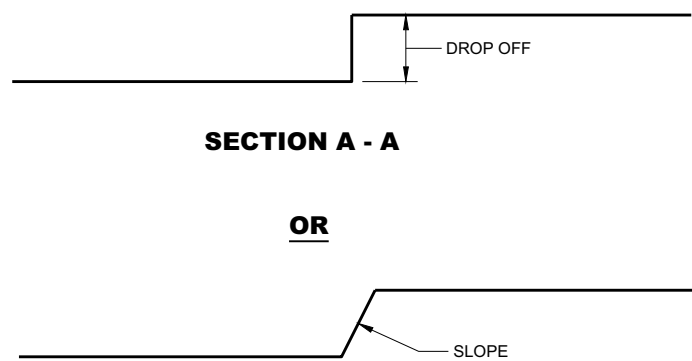
SDD 15D28 - 04



MULTI-LANE



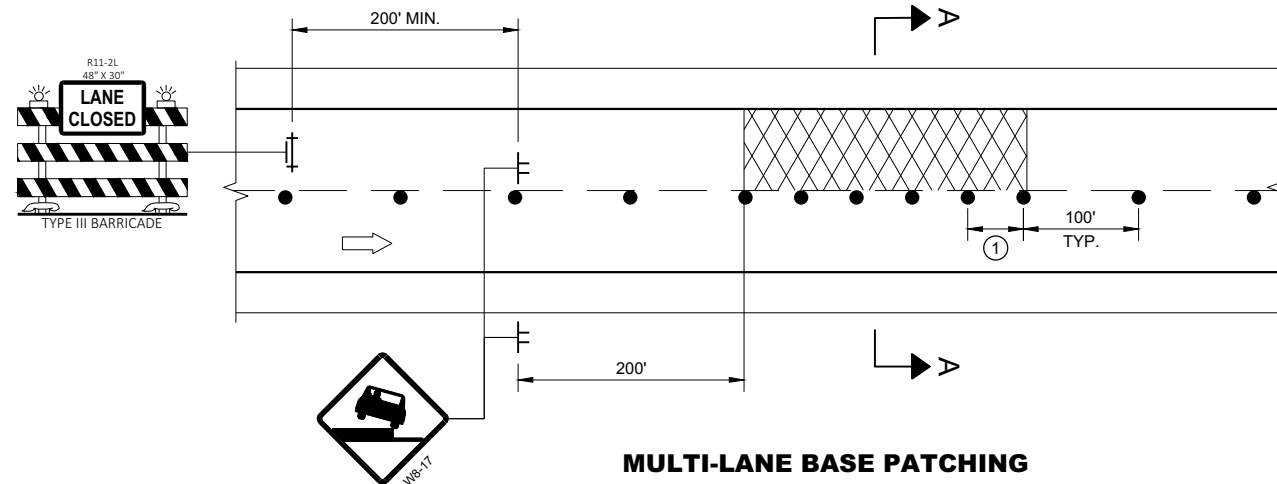
TWO-WAY TWO LANE



SECTION A - A

OR

SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

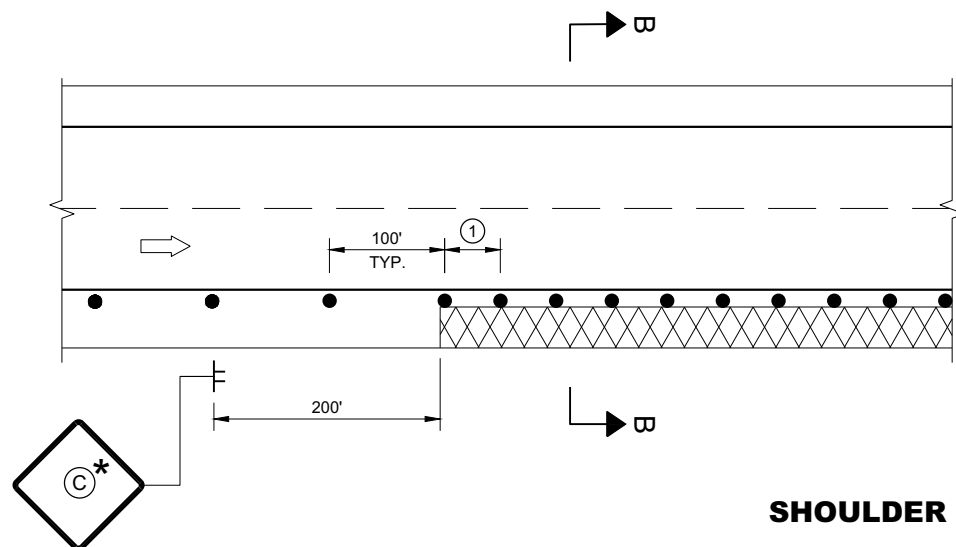
- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- * IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.
- ① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

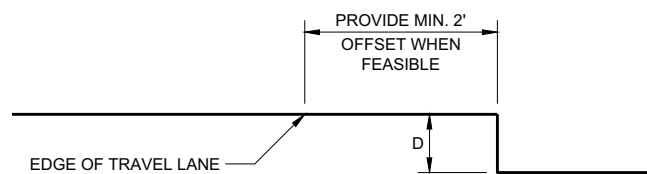
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

6

6



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	 W08-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	 W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

SDD 15D39 - 02

SDD 15D39 - 02

**TRAFFIC CONTROL,
DROP-OFF SIGNING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Andrew Heidtke
DATE DATE WORK ZONE ENGINEER

FHWA

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

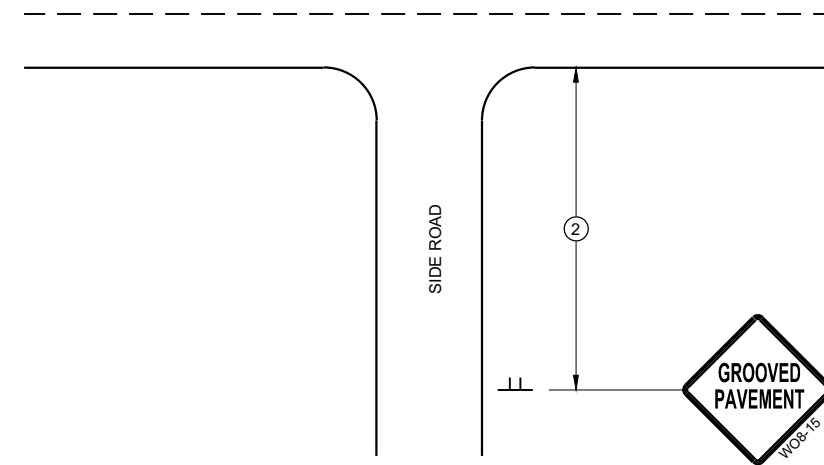
SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

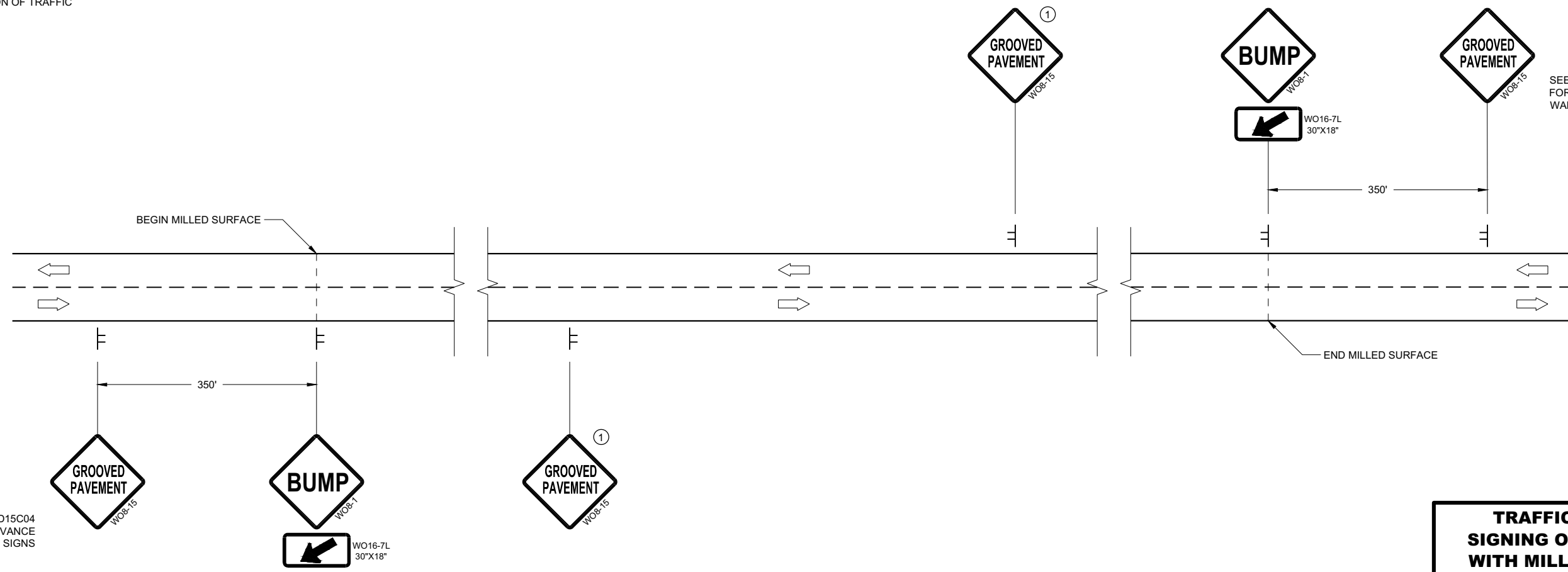
LEGEND

⊥ SIGN ON TEMPORARY SUPPORT

⇨ DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



SEE SDD15C04 FOR ADVANCE WARNING SIGNS

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

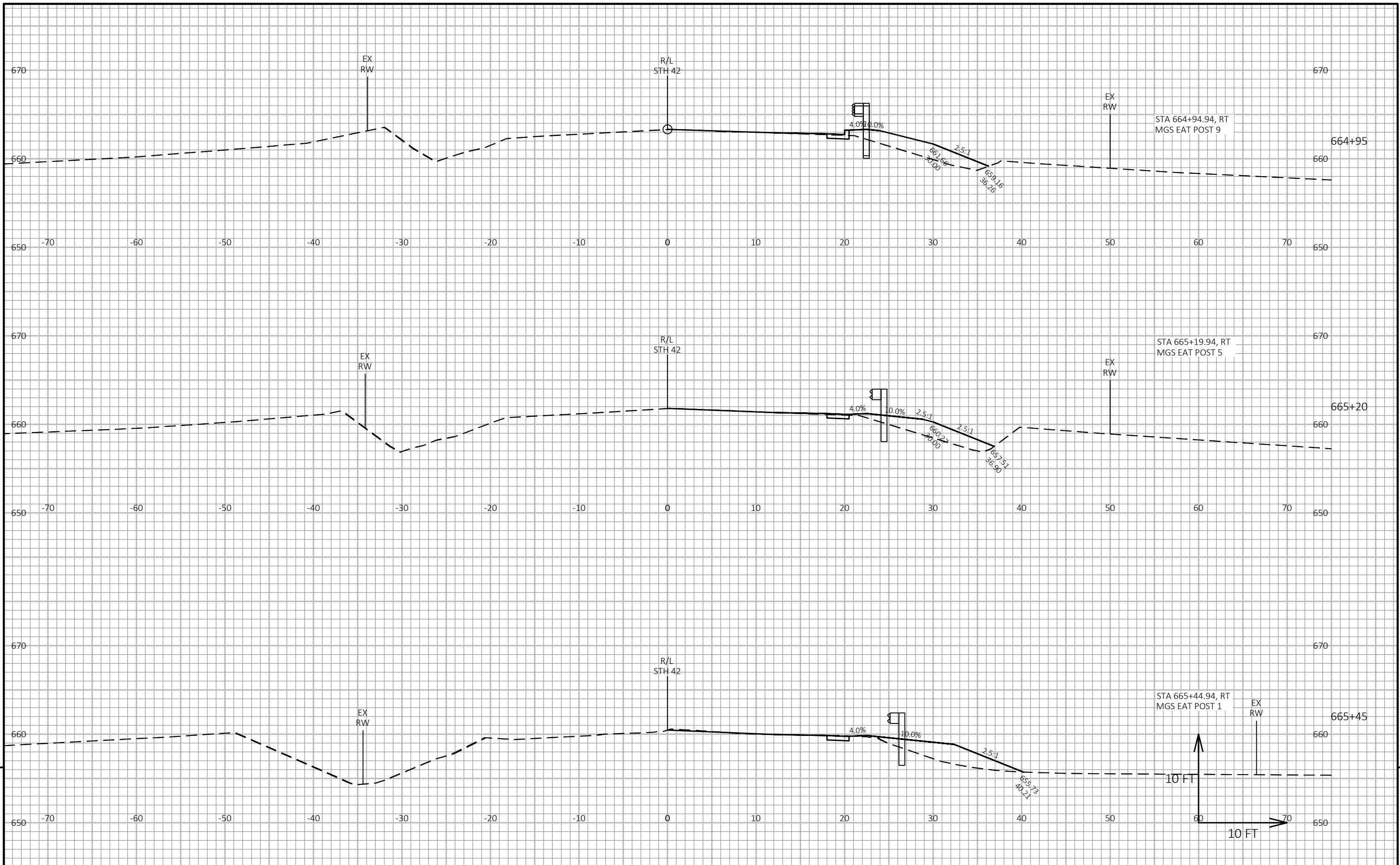
DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

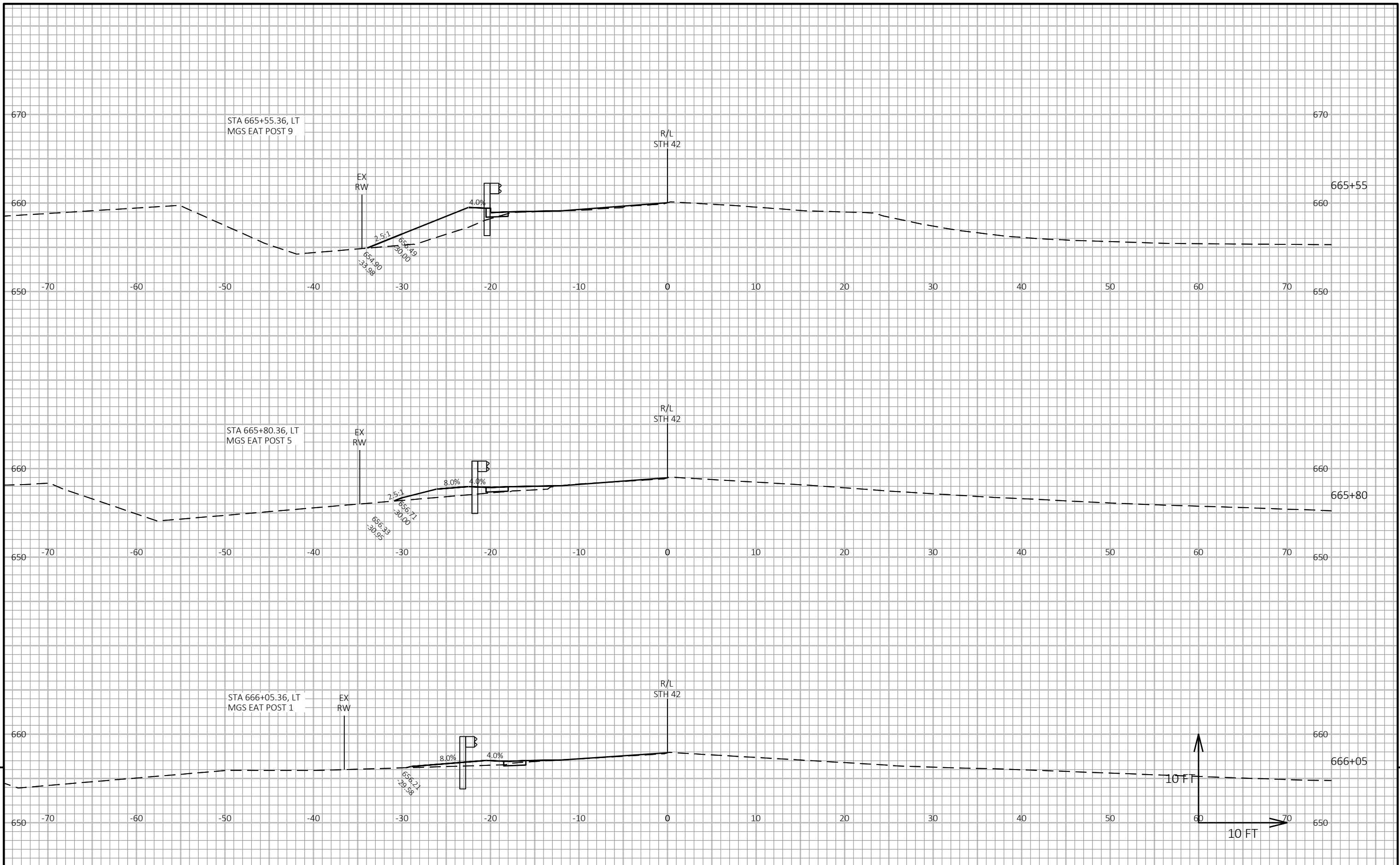
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



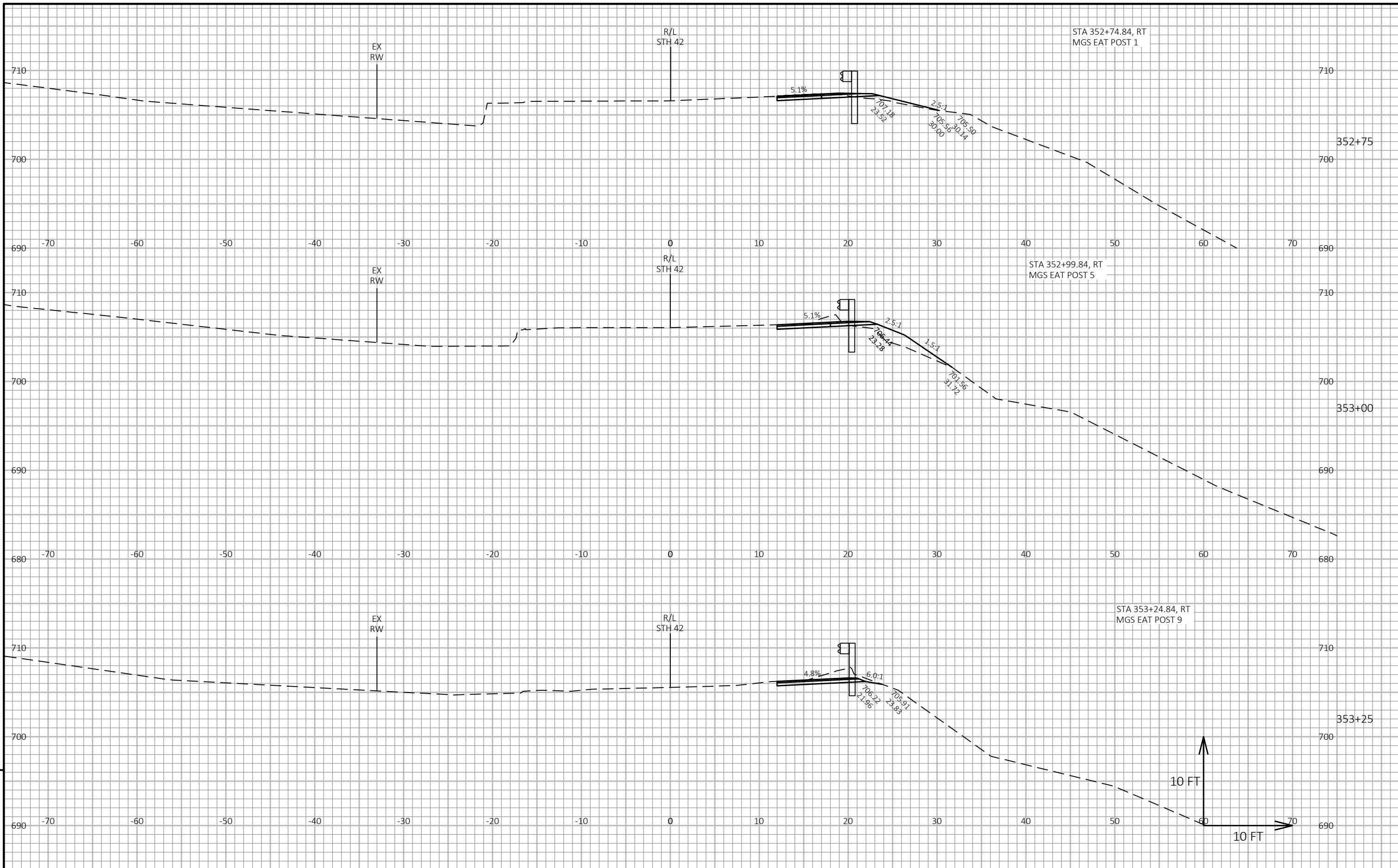
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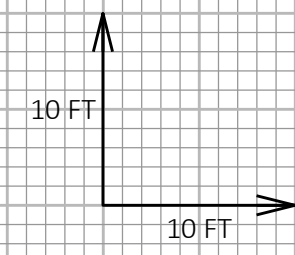
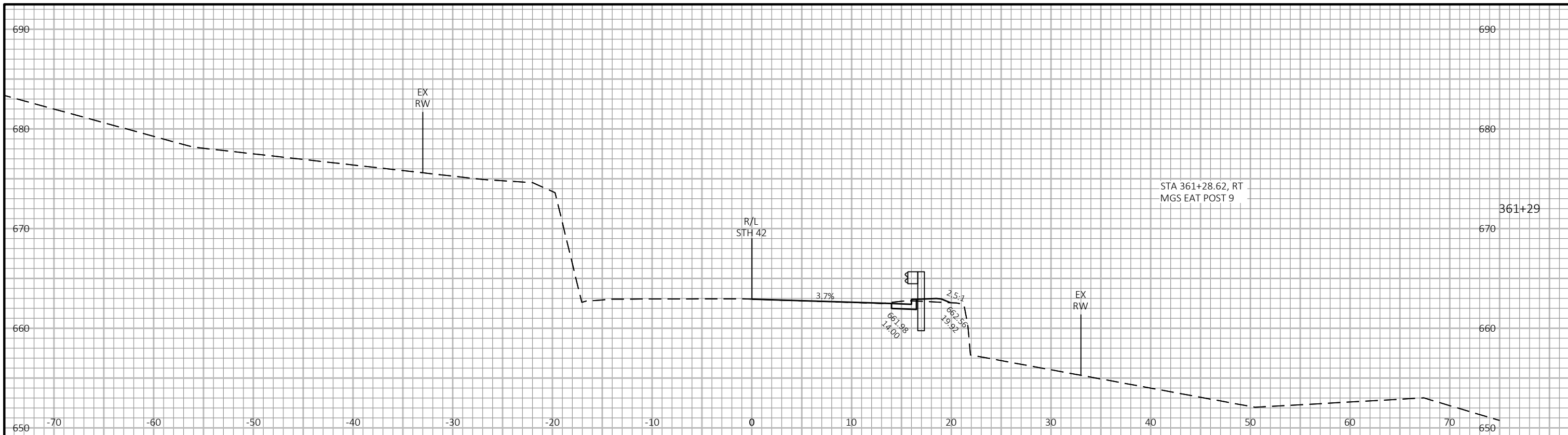
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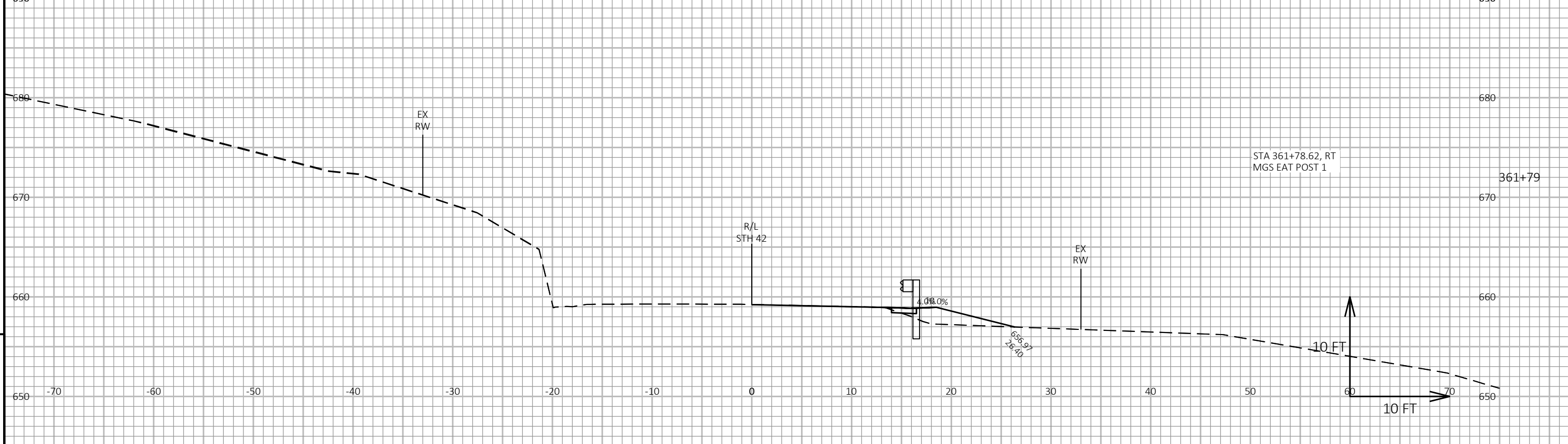
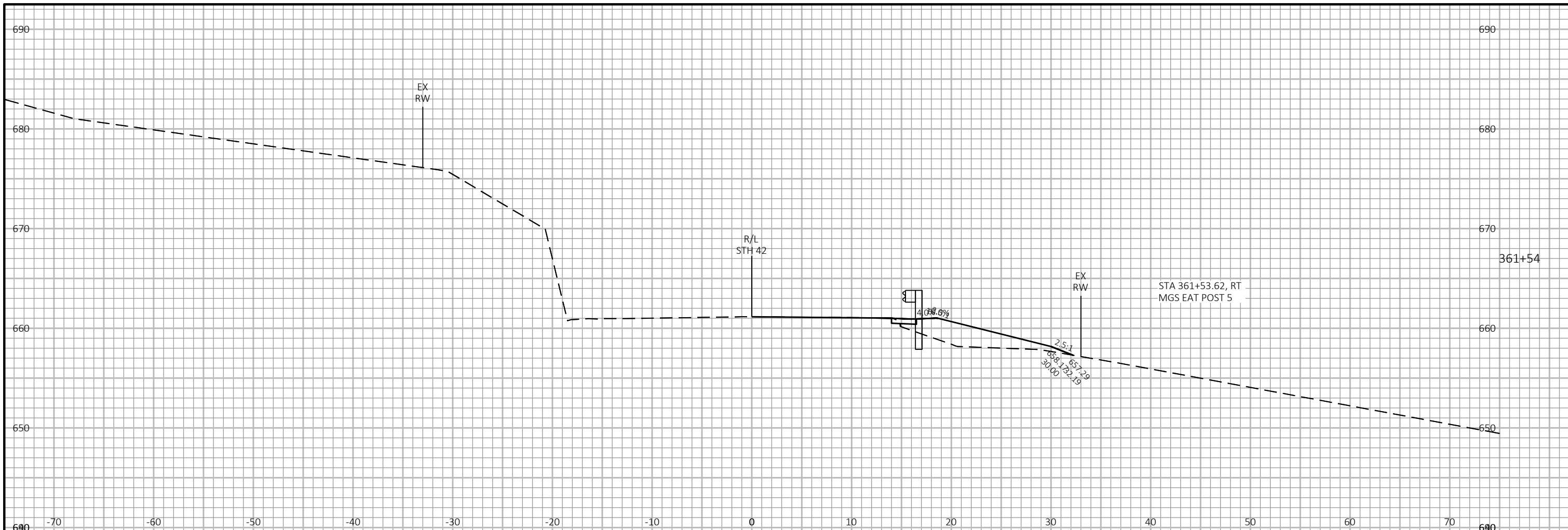
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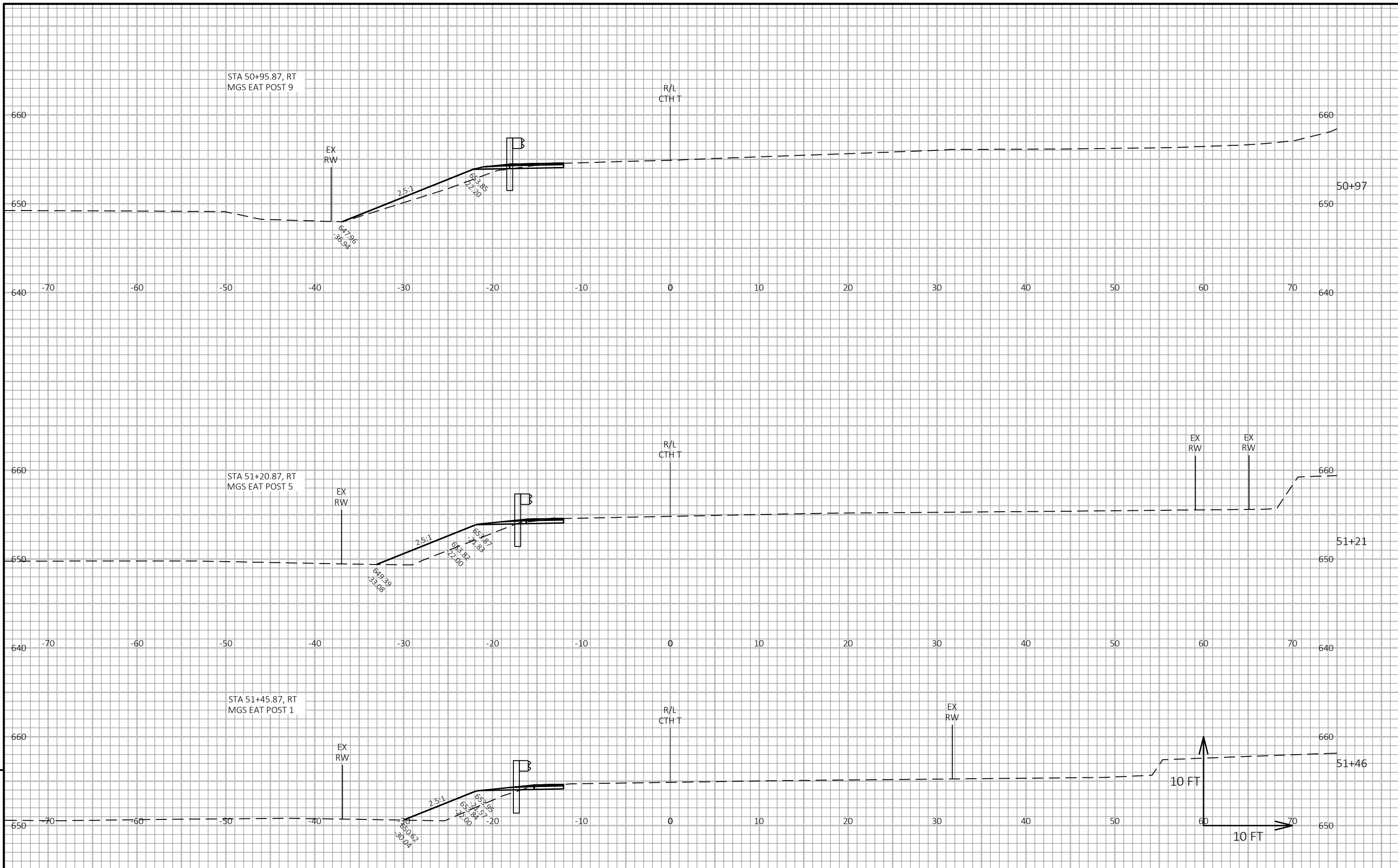
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PROJECT NO: 4140-34-60	HWY: STH 42	COUNTY: DOOR	CROSS SECTIONS: MAINLINE	SHEET	E
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PROJECT NO: 4140-34-60	HWY: STH 42	COUNTY: DOOR	CROSS SECTIONS: MAINLINE	SHEET	E
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PROJECT NO: 4140-34-60

HWY: STH 42

COUNTY: DOOR

CROSS SECTIONS: CTH T

SHEET

E

Notes



Wisconsin Department of Transportation

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